Oil, Paint and Drug Reporter

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Directory for Buyers.

This list gives the names of representative manufacturers, importers and large dealers in chemicals, drugs, oils, paints, dyestuffs, fertilizers, naval stores and allied trades. It also includes the names of manufacturers of machinery pertaining to these industries. Complete addresses can be obtained from the advertisements, an alphabetical list of which appears on page 5.

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Merrimac Chem. Co., Boston.
Powers, Weightman & Rosengarten, Phila.
C. E. Sholes Co., New York.
Thomsen Chem. Co., Balto.
John C. Wiarda & Co., Bikn.

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Magnus & Lauer, New York.
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James Lee & Co., New York.
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The Selling Co., New York.
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General Chem. Co., N. Y.
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WANT COLUMN (page 22).

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NEW YORK, MAY 15, 1905.

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FOREIGN TARIFFS AND AMERICAN COTTONSEED PRODUCTS.

In 1902 Germany adopted a new tariff law, by which the duties on imports generally were greatly advanced, and this act is to become operative March 1, 1906. In the meantime, an Austro-Hungarian tariff has been agreed upon, which will impose heavily increased duties upon imports into those countries, and there is every prospect that the new schedule will be put into force on February 15, 1906. Both of these acts bear onerously upon a large number of American products which are exported largely to the countries named, but upon none more seriously than they do upon cottonseed oil. By the new German law, the duty on this commodity is increased from the equivalent of 8⅛ cents to 10 1-5 cents per gallon, while the Austro-Hungarian schedule advances the rate from about 7½ cents per gallon, at which oil is now admitted from the United States, under the "most favored nation clause" to 30 cents per gallon. This would, of course, prove prohibitory, and the German rate would also be so practically. There is no longer, in the case of either of these foreign countries, an opportunity for the United States to avail of the "most favored nation" clause in the existing treaties, to effect a reduction of the duties in favor of American products, for the reason that the position taken by our government, with reference to the application of that clause to favors obtained by reciprocity, as in the case of Cuba, relieves foreign nations from extending to us the same duties it has accorded, under reciprocal treaties, to other countries. The only remedy left for relief from the burdensome impost upon American products is, therefore, the negotiation of reciprocal treaties between this government and those of Germany and Austro-Hungary. Protests by our State Department, to foreign governments, against onerous import duties, are not backed by that measure of consistency which is necessary to give weight even to diplomatic protestations, and there is nothing to be hoped for in the way of relief to American producers who are interested in keeping open the markets of the countries named, except the interests of the people of those countries, or a revision of the prospective schedules, under treaties of reciprocity by which something is yielded, on our part, to the foreign industries seeking a less obstructed outlet here. The present attitude of the United States Senate, as the representative of the heavily protected interests here, which are adverse to any lowering of our tariff wall, encourages very little hope of treaties which would be regarded by either the countries named as affording them enough of "reciprocal" benefit to justify their showing much liberality toward any of our agricultural commodities, which enter into competition with the products of the classes of their own citizens whose demands for governmental protection have been largely responsible for the sentiment that has led to the forming of these new tariff laws. It only remains, therefore, for the corresponding, and equally influential classes in our country, to make such irresistible demands upon Congress as will lead to its support of the President and the Secretary of State in the efforts they have already put forth toward an extension of the policy of reciprocity to which the present administration, no less than the preceding one, is thoroughly committed. The coming convention of the Interstate Cottonseed Crushers' Association, as the organized representative of all interests in cottonseed products, will find no more important work than the careful consideration of this subject, and the devising of ways and means for impressing upon both the legislative and administrative branches of the government, the necessity for such action as will protect this industry, as well as many others, against the closing of export outlets for their products. The importance to the cottonseed industry of the foreign markets which will be lost under the advanced rates of duty to be imposed by the two countries named, is shown by the following statistics of exports of cottonseed oil thereto in gallons for a period of four years:—

	Germany.	Austro-Hungary.
1901	4,148,905	4,102,755
1902	3,351,632	1,688,931
1903	2,807,057	3,677,411
1904	4,063,121	2,070,024

If the Interstate Association and similar organizations representing other agricultural products equally interested in the maintenance of existing foreign outlets, make an energetic and persistent appeal to the members of the Senate individually, and to the committees having these treaties under consideration, there should be little doubt of impressing upon that body a realization of its responsibility for the welfare of these great industries, whose prosperity contributes so largely to the material wealth of the nation.

SALTPETER SITUATION.

The continued high range of prices for saltpeter in this market has attracted considerable attention and has caused numerous inquiries as to the cause therefor, and regarding prospects for the future. The upward movement in prices began near the close of last year and has continued until the present time. Two months ago we gave the causes which had influenced prices in the primary market and stated our conviction that no relief need be expected, while in all probability prices would rule still higher. The course of the market since then has fully confirmed our views. As stated at that time the "crop" was regarded as a practical failure, owing to heavy rains, which had prevented the gathering of the salt and had dissolved much of the deposit, causing it to be absorbed. Since then reports have come from Calcutta of considerable receipts from the interior, doubtless caused by the higher prices, which have prompted a closer scraping, and that a short season of dry weather followed the copious rains, enabling the gathering of fair quantities, but later receipts again decreased. These unexpected receipts had a depressing effect on the Calcutta market and lower quotations for March shipments were cabled, but this proved only temporary and later advices indicate early recovery, as the decline was regarded as not fully warranted, while the market here was not influenced; in fact, quotations for future delivery have shown little change. The supply here is practically exhausted and the sailings are unusually small, the advices by mail and cable showing only 10,300 bags on way, while a year ago they amounted to nearly 12,400 bags and two years ago to over 16,000 bags. It will be seen therefore, that the prospects for this market to reach the figures prevailing last year are not favorable.

In the following table are given the lowest and highest prices of crude saltpeter in this market during each month of the past four years for purposes of comparison and reference:—

	1902.		1903.		1904.		1905.	
	L.	H.	L.	H.	L.	H.	L.	H.
Jan....	3.70	3.70	3.40	3½	3.40	3.45	3.85	3.90
Feb....	3½	3½	3.40	3.40	3.45	3½	3¾	3.90
March..	3½	3½	3.40	3½	3.40	3½	3¾	4
April...	3½	3½	3.35	3.40	3½	3½	4	4.55
May....	3½	3½	3.40	3½	3.45	3½	...	...
June...	3½	3½	3.35	3½	3½	3.60	...	...
July....	3½	3½	3.35	3.45	3½	3.70	...	...
Aug....	3.30	3½	3¼	3.45	3½	3.60	...	...
Sept...	3.30	3.30	3.30	3.40	3.55	3.60	...	...
Oct.....	3.30	3.40	3.40	3.40	3.45	3.45	...	...
Nov....	3.35	3.45	3.45	3.45	3.45	3¾	...	...
Dec....	3¾	3¾	3.40	3½	3¾	3.90	...	...
Year..	3.30	3.70	3¼	3½	3.40	3.90	...	...
1901....	3½	3.80	...	...	...	...	...	...

AMERICAN SAFFRON FLOWERS UNSETTLED.

Values for American saffron flowers have broken sharply during the last three weeks, and the approach to a normal basis is a probability of the near future. The extraordinary course of the market a year ago, when quotations rose from forty-five cents in January to one dollar and forty cents in June, is undoubtedly familiar to those who are interested in the article. The close control of the available stocks in the primary markets and the prevalence of epidemics of measles throughout the country were responsible for this series of remarkable advances. Reports of a curtailed production in Mexico contributed to the stimulating influences, and, while the market showed occasional declines, a basis of one dollar and thirty cents was maintained up to last April, when an advance of five cents was announced, in consequence of the increased demand, and the concentration of local stocks. Late in the month, however, offers of round lots at material price concessions were made with unexpected force, and spot values yielded to one dollar and a quarter, with the tone of the market unsettled by the prospect of early crop arrivals. The eagerness to sell has since brought quotations to the dollar basis. Even this figure is far beyond the normal, and there is little incentive to buy, pending the developments of the next few weeks. As a rule, new crop goods are not received on this market until July, and the offers so unexpectedly made from Mexico are believed to be of last year's stocks, which in some unaccountable manner have remained out of the market. A lot of forty-seven bales, which arrived this week from Vera Cruz, Mexico, probably consisted of the same stocks, and these are likely to hold the market to its present unsettled state until new crop flowers are due, by which time some definite basis for marketing the goods will have been afforded. The following table may be of interest to show the relatively high level of spot values during the last year:—

	1905.		1904.		1903.		1902.	
	H.	L.	H.	L.	H.	L.	H.	L.
Jan....	1.30	1.30	.48	.45	.30	.30	.12	.12
Feb...	1.30	1.30	.48	.48	.30	.30	.12	.12
Mar...	1.30	1.30	.70	.48	.30	.28	.12	.12
April..	1.35	1.25	1.10	1.00	.28	.28	.12	.12
May...	1.15	1.00	1.20	1.20	.28	.28	.12	.12
June..	..	..	1.40	1.35	.28	.28	.12	.12
July...	..	..	1.35	1.25	.28	.27	.12	.12
Aug....	..	..	1.35	1.25	.35	.27	.15	.12
Sept...	..	..	1.27½	1.25	.35	.35	.20	.20
Oct....	..	..	1.30	1.27½	.45	.45	.20	.20
Nov...	..	..	1.30	1.30	.45	.45	.20	.20
Dec....	..	..	1.30	1.30	.45	.45	.25	.20
Year..	..	..	1.40	.45	.48	.27	.25	.12

American saffron flowers often follow a widely fluctuating course, and the prevalence of measles is generally a signal for rapid advances. Under this influence they have commanded as high as two dollars. With this demand withdrawn, prices usually reach a low level, and seven cents was a possible buying basis in primary sources in 1900.

DOWNWARD COURSE OF OPIUM VALUES.

The course of the opium market since early in February has been generally disappointing, having been in almost steady decline from three dollars to two dollars and eighty-five cents for cases this week. This downward tendency has been in spite of the most unfavorable crop prospects in Turkey, and two factors may be mentioned to describe this seemingly inconsistent position of the primary and local markets. These are the limited extent of the spot demand and the excessive yield of last season, aggregating more than eleven thousand cases, against three thousand two hundred cases for 1903. The average annual production for the last sixteen years is approximately six thousand cases. The damage to the fall and winter sowings has been the feature of advices from our correspondents in Turkey from last November to March, and while the weather conditions have favored the spring sowings, the yield from this source is, as a rule, of little consequence. Late advices from Turkey indicate that the total production this year is not likely to exceed four thousand cases, but with the ample stocks left in Turkey from last year's crop there is little probability of any shortage. Government statistics give the imports of crude opium during the first three months of this year as 84,079 pounds, against 94,465 pounds for the corresponding period last year. There were remaining in warehouse on March 31 last 178,950 pounds of crude opium, against 100,664 pounds at the same time last year. It may be of interest in this connection to show the imports of crude and prepared opium during recent years, as compiled from records of the Department of Commerce and Labor at Washington, as follows:—

	Crude—		Prepared—	
	Quantities.	Values.	Quantities.	Values.
1904....	586,922	$1,156,537	128,873	$1,135,538
1903....	592,792	1,275,511	165,490	1,113,821
1902 ...	530,661	1,116,773	221,270	1,420,090
1901....	523,917	1,171,457	132,815	1,056,886
1900....	543,726	1,143,747	156,041	1,220,261
1899....	487,379	1,038,978	106,593	735,868
1898....	415,317	996,812	119,757	770,380
1897....	786,692	1,584,764	131,409	914,603

NITRATE OF SODA CONTINUES STRONG.

The market for nitrate of soda continues very firm and there are no indications of an early change in buyers' favor. The situation on the West Coast is exceptionally strong, prices having strengthened and sales are reported at an advance over previous quotations. This is due to the continued active demand from Europe, where the consumption this year exceeeds the expectations that had been entertained. The statistical situation here is very strong, there being parcticially nothing on the spot, and the bulk of the first cargo due has been sold. The visible supply to the middle of August is about 70,000 tons, which is barely equal to the average deliveries for that period, and consequently no surplus need be expected. Naturally prices keep very firm and the outlook is that they will continue at about the present level for some months to come. Prices for deliveries during the balance of this year are apparently gaining in strength and no concessions are obtainable from recent quotations on deliveries extending into next year. All this tends to confirm the view that prices will remain high, though what changes may develop later in the year cannot be foreseen. In view of the fact that the consumption of nitrate of soda is increasing from year to year, while the miners in Chile do not appear able to increase their output at a corresponding ratio, it is highly improbable that the low prices formerly prevailing will again be reached. There are periodical reports of large deposits of nitrate in California and elsewhere, but thus far

these have not been developed and until some important new source of supply is made available high prices may be expected to prevail.

For convenience of comparison and for ready reference we append a table, showing the highest and lowest prices of nitrate of soda in this market during each month during the past three years, as follows:—

	1903.		1904.		1905.	
	H.	L.	H.	L.	H.	L.
Jan....	1.97½	1.95	2.20	2.15	2.37½	2.30
Feb....	1.97½	1.95	2.12½	2.10	2.35	2.32½
March..	2.25	1.95	2.17½	2.12½	2.37½	2.32½
April...	2.05	2.00	2.25	2.17½	2.85	2.45
May....	2.10	2.00	2.20	2.12½	...	...
June...	2.25	2.00	2.15	2.10	...	...
July....	2.00	2.00	2.17½	2.17½	...	...
Aug....	2.25	2.05	2.17½	2.17½	...	...
Sept....	2.25	2.15	2.20	2.17½	...	...
Oct.....	2.25	2.15	2.27½	2.20	...	...
Nov....	2.20	2.10	2.37½	2.27½	...	...
Dec....	2.15	2.12	2.37½	2.35	...	...
Year..	2.25	1.95	2.37½	2.10	...	...
1902....	2.50	1.85	...	...	...	...

THE WINDOW GLASS SITUATION.

Trade in window glass has been rather disappointing, but jobbers are not discouraged and views for the future are still optimistic. The Manufacturers' and Jobbers' Window Glass Association held a meeting in Pittsburgh on Thursday last, the sole object of which was to make the announcement that all of the plants of the association, numbering about seventy-five, of the independent manufacturers of the United States will be closed on June 1. The association reports that the output of all their plants has been sold under contract to jobbers of the association. The rules of the association in reference to the buying and selling of glass by the members have been suspended until the fall and meanwhile jobbers may purchase and dispose of their glass as they see fit. According to reports, it appeared that the above association was contemplating meeting the cut in prices on the small sizes of glass made by the machine plants, but this plan was not even considered at the meeting of the association. It is claimed that it would have been ridiculous for the association to have met any cuts in prices on the machine product as the small sizes of the latter selling at about cost, against which competition by hand-made glass is out of the question. It remains to be seen whether the machine-made glass interests will eventually drive the smaller manufacturer out of business. The machine interests are still far behind in making deliveries on outstanding orders for large sizes and are still endeavoring to induce their buyers, whose orders remain unfilled for large glass, to allow them to substitute small sizes at a great reduction in price. The low price named by the machine interests is having no direct affect on the prices of the good quality of hand-made glass, particularly the large sizes, which are not produced by the blowing machines.

TRADE ITEMS.

(For other Trade Items see table of contents on page 22.)

The Ballard-Snow Liniment Co. has purchased the business of Dr. Swayne & Son, Philadelphia.

The Bottlers' and Manufacturers' Supply Company has secured judgment for $885.39 against Joseph Forman.

The Crane Glass and Manufacturing Company has entered judgment for $442.94 against James L. McDermott.

Judgment for $98.14 has been entered against Robert S. Thomas in favor of the Pittsburgh Plate Glass Company.

F. L. E. Gauss has withdrawn from the Searle & Hereth Co. and is now associated with Messrs. Eli Lilly & Co., Indianapolis.

Judgments have been entered in favor of the Connecticut Chair Company for $277.53 against the Acme Chemical Company, and for $132.41 against the Alk-Moss Glass Company.

E. L. Sibley, Bennington, Vt., since purchasing the ocher plant from the S. L. Godfrey estate, has made extensive alterations and improvements, and the works are being enlarged and new up-to-date machinery is being installed where old processes can be improved upon. These ocher works have been in operation a long time and have been known for years for the production of bright, strong, clean ocher.

Ed Levy, of G. S. Samuel & Ed Levy, Paris, sailed for home last Thursday on the Steamship La Tourine. Mr. Levy was in the city for about a month, and called on the importers of vanilla beans.

It will be a source of pleasure for the many friends of Mr. Charles Hubbard, of the firm of Charles Hubbard, Son & Co., who has been confined to his bed by serious illness for the past few months, to know that he is recovering.

Shipments of fertilizer from Charleston, N. C., during the last four months, beginning January 1, amounted to 276,971 tons, against average shipments in previous years of over 300,000 tons. The largest shipments were made in March.

The Pinebelt Turpentine Company has been incorporated recently in Americus, Ga. It is said that the company will erect numerous plants in three States for the distillation and refining of turpentine from stumps and similar material now largely wasted.

Among those interested in the sale of the cottonseed products, who were on 'change during the week, were E. T. George, C. B. Fox, of New Orleans, La.; W. B. Albright, Chicago; J. M. Macdonald, Cincinnati, O.; W. E. McCaw, Macon, Ga., and F. W. Brode, Memphis, Tenn.

The treasury regulations establishing the rate of drawback on tin cans manufactured from imported tin plates and solder containing imported lead have been extended so far as applicable to cover exportation of "two-imperial-gallon" cans manufactured by the Standard Oil Co.

Members of the chemical trade will learn with sincere regret of the death of Mrs. Alex. C. Fergusson, and will join the Reporter in expressing their sympathy to the senior member of Fergusson Brothers. Mrs. Fergusson's death occurred on last Tuesday, after a short illness of diabetes.

Advices from Japan note that the herring fishing season has been good thus far and large catches of herring on the western coast of Hakkaido have been made. The catches were as follows: At Suto, 3,000 kokus; at Isaya, 5,000; at Oshigi, 12,000, and at Yasichi, 5,500; total, 15,500 kokus, which is equivalent to about 387 tons.

The executive committee of the Amalgamated Window Glass Workers of America has announced that the annual meeting of the association will be held in Cleveland, O., in July. A. L. Faulkner, of Dunkirk, Ind., was elected president of the association to fill the vacancy occasioned by the resignation of W. S. Phillips.

The ninety-sixth dinner and meeting, and the eighteenth annual meeting for the election of officers of the Paint, Oil and Varnish Club, of this city, will be held on Thursday, May 18, at 6 p. m., at the Drug Trade Club. As this is the last meeting of the club until fall, considerable business of interest to the members may be expected.

The cod oil export from Iceland is increasing every year, but shark is steadily decreasing, while both exports added together make out about the same quantity yearly. Whale oil has been a very progressive article of export, but is rather decreasing of late years. Whale fishing is still almost entirely carried on by Norwegians.

Reports received from the president of the Flint Glass Workes' Union state that this organization will erect three lamp chimney plants, which will give employment to union men. The plants to be built will be located in Marion, Ind., Pennsylvania and West Virginia. The Marion factory will give employment to about 500 men.

Attention is directed to the advertisement of the Globe Chemical Company, Cincinnati, O., which appears on another page of this issue. They make a specialty of exchanging, buying and selling stocks of chemicals, drugs, paints, anilines, oils, dyes, carboys, drums, etc. Readers may find it to their interest to get their quotations before disposing of such articles.

The last meeting of the New York section of the Society of Chemical Industry will be held at the Chemists' Club, 108 West Fifty-fifth street, on Friday evening, May 19. The following papers will be read: D. Wesson and N. J. Lane, "The Quantitative Analysis of Lard;" J. Merritt Matthews, "Influences of Various Scouring Processes on the Strength and Elasticity of Wool;" Walter S. Williams, "Valuation of Tannic Acid from the Point of the Dyer and Calico Printer;" Martin Schwitter, "Tin in Alaska."

The many friends of F. W. Brode, of Memphis, Tenn., will be pleased to learn that he was only slightly injured in the wreck which occurred on Wednesday night last near Harrisburg, Pa. Mr. Brode was on his way home, after spending a few days in this city.

The roof of one of the buildings of the Harrison Chemical Works, at Philadelphia, took fire from a spark from a chimney on the 8th inst. and before the flames could be subdued the building was damaged to the amount of $5,000. Although the firemen were promptly on hand they could not use water on account of the nature of the contents of the building and recourse was had to smothering the flames.

The British consul at Buenos Ayres, Argentine, reports: "The increase in quebracho extract and logs has been large, more especially in the former. The United States of America buy most of the former and Germany most of the latter. A large quantity of logs goes to 'order' and possibly reaches the United Kingdom. This industry is being developed and organized. The value of the quebracho forests has largely increased. Extract factories are being established. The business is largely in the hands of Germans."

The Supreme Court of the United States has decided the case of the Board of Trade of Chicago against the C. C. Christie Commission Company, of Kansas City, and the Kinsey Company, of Chicago, involving the question as to the right of the private concerns to use the continuous quotations of the Board, in favor of the contentions of the Board of Trade. There were two cases in which the point was raised, one of them being entitled the Board of Trade vs. the Christie Company, of Kansas City, and the other the Kinsey Company, of Chicago, vs. the Board of Trade, but the question involved was the same in each case and both involved efforts to enjoin the private establishments from the use of the Board's quotations.

(For other Trade Items see table of contents on page 22.)

PETROLEUM NOTES.

Near Hays station, in Beaver county, Pa., R. K. Wilson has completed No. 11 on his own farm and has a 10 bbl. producer.

West of Empire, Jefferson county, O., E. H. Dyer & Co. have completed No. 5 on the R. E. Gladden farm and have a show for a 100-bbl. producer.

In the Salem district, Harrison county, W. Va., Wilson and the Carter Oil Co. have completed a test on the Whalen farm and have a 20 bbl. producer in the Gordon sand.

In the Newport district in Washington county, O., Hayhurst & McCraley have completed No. 5 on the Joseph O'Neill farm and have a show for a 3 bbl. producer in the Berea grit.

In the Newport district, Washington county, James Morrison & Co. have completed their second test on the G. Thomas farm and have a show for a 20-bbl. producer in the Berea grit.

West of Mannington, Marion county, W. Va., in the 30 foot development, the Delmar Oil Co.'s No. 12 on the J. L. and A. J. Hays farm has been completed and was producing 75 bbls. a day.

In the Wolf Creek district, in Washington county, O., the Pure Oil Producing Co. has drilled its No. 9 on the E. H. Palmer farm into the shallow sand and has a show for a good producer.

Near Bula, Clay district, Monongalia county, W. Va., the Hope Natural Gas Co. has drilled its No. 2 on the Isaac Lemley farm into the Gordon sand, and the hole has filled up 2,000 feet with fluid.

Near Bula, Grant district, Monongalia county, W. Va., the Hope Natural Gas Co. is putting its test on the Isaac Lemley farm to pumping and will have a 15 bbl. producer from the Gordon sand.

The British Consul at Warsaw reports as follows: "The principal firms supplying this district propose to form a syndicate for the joint sale of petroleum in Poland, both with a view to diminishing expenses and to do away with competition amongst themselves. They also propose to fix a standard price for petroleum throughout the year, to which no exception would be made. There are now in Poland five special kerosene stores, with 36 reservoirs, in which there is room for 26,000 tons of petroleum. In view of the increasing demand for petroleum, two more depots with reservoirs are to be constructed."

In Noble county, O., Harper Bros. have completed a second test on the John H. Price farm and have a show for a 10 bbl. producer in the Buells run sand.

On Llewellyn run, Mannington district, Marion county, W. Va., the Burt Oil Co. has drilled its second test on the Daniel Varner farm into the Big Injun sand and has a show for a fair producer.

South of Jerusalem, Monroe county, O., the Southern Oil Co. has completed and shot its second test on the W. E. Moore farm and has a show for a 15 or 20 bbl. producer from the Big Lime formation.

In the Gordon development, on Salem Fork, Ten Mile district, Harrison county, W. Va., the Industrial Oil and Gas Co. has been drilled through the Gordon sand and will not make better than a 5 bbl. pumper.

Seven miles north of Middleburg, in the direction of Caldwell, O., the Ohio Fuel Supply Co. has drilled a test, a wildcat, on the C. V. Cain farm into the Berea grit and has a show for a 10 bbl. producer.

North of Fairview, Marion county, W. Va., the South Penn Co. has completed its No. 1 on the R. E. Tennant farm in the fourth sand and the hole has filled up 2,000 feet with fluid. It will make a fair producer.

In the Big Lime district, near Milton, in Cabell county, W. Va., the Harshbarger Oil and Gas Co.'s No. 3 on the R C. Kilgore heirs' farm, is good for a 30-bbl. producer. The location is 1,200 feet south of No. 1 Beckett, the first well completed in the pool.

In the New Galilee development, Beaver county, Pa., Clark & Co. have completed a test on the W. J. McClure farm and have a show for a 2 bbl. pumper. In the same district the Davis Oil Co. has completed its No. 3 on the W. J. McClure farm and has a 3 bbl. pumper in the Berea grit.

In the Yellow Creek district, Calhoun county, W. Va., the Aleco Oil Co. has drilled its No 1 on the Michael McKnight farm through the Berea grit and has a 50 bbl. producer. The South Penn Co.'s No. 3 on the Ross L. Norman farm is through the same formation and good for 100 bbls. a day.

In the Fairview district, in Marion county, W. Va., the South Penn has put its No. 2 on the J. B. Haught farm to pumping and it is producing 35 bbls. a day. The R. E. Tennant is producing 15 bbls. a day. The same company shot its No. 10 on the D. L. Toothman farm and it produced 100 bbls. the ensuing 24 hours.

In the Smithfield district, Wetzel county, W. Va., the Hope Natural Gas Co. has put a packer in its No. 1 on the M. E. Lemasters farm and it was flowing at the rate of 35 bbls. a day. In the same district the South Penn Co.'s No. 22 on the B. W. Peterson farm has been drilled from the Big Injun to the Gordon sand and was producing 25 bbls. a day.

In the Hopedale District, in Harrison county, O., the Oakdale Oil and Gas Co. has completed its Nos. 8, 9 and 10 on the John M. Copeland farm and they are good for 10-bbl. pumpers. Brown & Copeland have completed their No. 4 on the W. P. Hanna farm and have a 10-bbl. pumper. The Hawke Oil Co.'s test on the John A. Copeland farm will make a very light pumper.

In the Woodsfield district, Munroe county, O., the Florence Oil Co. has drilled in its No. 3 on the Peter Wahl farm and is expected to make a 5-bbl. pumper. In the same district the Traders Oil Co. has drilled its test on the John Friday farm through the Keener sand and has a show for a 5-bbl. pumper. The Troutman Drilling Co. has rilled its No. 3 on the Mark Hoffman farm through the Keener sand and has a show for a 10-bbl. producer.

In the Burning Spring district, Wirt county, W. Va., Mellon Bros. have completed their No. 25 on the Rathbone oil tract in the second Cow Run sand and the well produced 90 bbls. the first 24 hours. The sand was reached at a depth of 540 feet. On a part of the same tract, the Niagara Oil Co. has completed its No. 13 in the first Cow Run sand at a depth of 313 feet and the well produced 55 bbls. the first six hours after it was put to pumping.

In the Lewisville district, in Monroe county, O., Wilson & Shafer have completed a test on the John Bristo farm and will have an 8 bbl. pumper in the Big Injun sand. In the same district the Emery Oil Co. has completed its No. 4 on the Fritz Weber farm and has a 3 bbl. pumper in the Keener sand.

In the Pine Grove extension, Wetzel county, W. Va., the Kanawha Oil Co. has completed its second test on the J. R. Gorby farm and has a light pumper, not good for more than 5 bbls. a day in the Gordon sand.

The big strike in Butler county is attracting the most attention. The well is on the Dr. O. K. Waldron farm, about three miles almost due west of Butler, Pa., and about the same distance north of McCalmont station on the Pittsburgh & Western railroad. The oil was encountered in the fourth sand and the location is about one mile northeast of the fourth sand development on the Hussleton farm and on about a 45 deg. line. The latest gauge reported showed the well flowing at the rate of 60 bbls per hour.

About midnight last Wednesday, while an operator was gauging oil in the big tank of the Eureka Pipe Line Co., at Downs, near Mannington, W. Va., he struck a match, and immediately there was a terrific explosion. The explosion blew a large hole in the roof of the tank, and set fire to the oil. There was about 12,000 barrels of oil in the tank. Three shots were fired against the side of the burning oil tank, releasing oil, thus relieving the danger of a disastrous explosion that would have destroyed the town. All but 2,000 barrels of the oil were destroyed, and the big iron tank is a complete loss. The total loss is $25,000. A nearby 20,000 barrel tank caught fire several times, but was extinguished by the liberal use of blankets and water.

In writing of the petroleum trade of Calais, France, the British Consul says: "Raw petroleum came only from Russia, the quantity being above the average, and in the present condition of the petroleum market the following figures may be found interesting: In 1899 Calais imported 10,750 tons, in 1900 10,772 tons, in 1901 15,174 tons, all from the United States; 12,897 tons in 1902 and 12,740 tons in 1903 came from the United States and Russia; the importation of refined petroleum from the United Kingdom, averaging 48,234 gallons for the previous four years, ceased in 1904, while petroleum residues and heavy oils, mostly from Russia, show increasing importance, and include the new lubricating oil, "oleonaphtha," of which 2,306 tons of No. 1 in bulk and 64 tons of No. 2 in barrels came from Batoum."

OBITUARY.

Moses Goodkind.

With the death of Moses Goodkind there passed away a man whose career in various business enterprises in New York City has been most interesting and eventful. Mr. Goodkind was a man who was highly esteemed by his friends and business associates. He was of a naturally genial, happy temperament and of an affectionate nature, which, with his most honorable business career, has won for him a score of friends, who feel his loss keenly.

Moses Goodkind was born on April 9, 1830, in Stein, Baden, Germany, and came to this city when he was fifteen years old. He remained in New York a short time, and in the early fifties sailed for California, where he took an active part in the early pioneer times. He returned to New York in 1853, and engaged in the manufacture of soap, erecting his own soap plant, which was located where the present entrance of the Metropolitan Opera House is situated, on Broadway and Thirty-ninth street. At that period he devoted much of his time to charitable work and was a director from 1870 to 1876 in the Hebrew Orphan Asylum. He was a director of the United Hebrew Charities and one of the founders of the Temple Beth El. At the time it was located down town. He was the first secretary of this Temple. Mr. Goodkind was a Commissioner of Public Charities and Corrections of the City of New York and was well known and active in politics, being one of the leaders of the Fifteenth Assembly District, and was also a delegate to the Republican national convention which nominated James A. Garfield for President. In the years of 1865 to 1868 he was one of the first to bring crude cottonseed oil from the South and manufactured refined oil at his own plant in this city. In the years 1873 to 1886 he was a factor in the importing and manufacturing of artificial flowers and feathers. Following this he embarked in the fisheries business and was later elected president of the company which firm's name was the Barren Island Fertilizer & Oil Works, with the plant located on Barren Island. At the time the present Fisheries Company was organized the interests and plant at Barren Island were absorbed, after which Mr. Goodkind retired from active business. He served as the foreman of the jury at the trial of Mayor A. Oakey Hall, which will be remembered by many as a famous and notorious trial at the time. Of recent years Mr. Goodkind did not possess good health, which was partly due to a fall while walking on a slippery dock on Barren Island, and thereby sustained serious injury to his back, which confined him to his home for some time. Mr. Goodkind died on the morning of May 10, in his seventy-fifth year. A widow and family of three sons and three daughters survive him.

MISCELLANEOUS.

Bids for Naval Supplies.

Bids were opened at the Bureau of Supplies and Accounts, Navy Department, on May 2 for supplies for the Eastern navy yards as follows:—

Bidder 3. Armour & Co.
19. F. S. Banks & Co.
24. Bliven & Carrington.
27. James Clendenin.
29. Wm. Wirt Clarke & Son.
39. Carpenter-Morton Co.
45. F. W. Devoe & C. T. Raynolds Co
54. Eastern Drug Co.
57. Frye, Phipps & Co.
59. Fiske Bros. Refining Co
66. John Greig.
68. Richard W. Geldart.
73. Hartman Co.
76. A. L. Hirsh.
77. Hadwin Houghton
78. Harrington, King & Co
82. Hanline Bros.
95. John Lucas & Co.
98. Merchant & Co., Inc.
102. Nelson, Morris & Co.
105. John W. Masury & Co.
109. Manhattan Supply Co.
114. Nassau Smelting & Refining Works.
120. J. Ed. Ogden Co.
122. Pool & Macy.
125. Phoenix Paint and Varnish Co.
139. Hugh Reilly.
140. R. P. Rowe.
144. Standard Oil Co.
155. Thomas Somerville & Sons
156. Sun Co.
157. Sherwin-Williams Co.
165. Union Petroleum Co.
167. D. Carl Van Lien.
173. B. Wallis & Co.
177. C. H. Winkelman & Co.
183. Waldo Bros.

Class 29. Annapolis—2,000 lbs. white lead—Bidder 39, $110; 57, $120; 82, $118.80; 95, $117.50; 139, $122.50; 177, $120.

Class 30. Annapolis—50 gals. orange shellac and 50 gals. white shellac—Bidder 29, $215; 39, $224; 66, $187; 82, $200; 95, $265; 139, $192.50; 177, $200.

Class 39. Washington—2,000 lbs. pig lead—Bidder 27, $95.80; 73, $102.40; 98, $99; 114, $101.80; 155, $102.50.

Class 42. Washington—120,000 gals. fuel oil—Bidder 156, $3,924; 144, $3.840; 165, $4,920.

Class 56. Boston—About 5,000 lbs. rosin. Bidder 19, $92.50; 29, $72; 54, $70, 68, $217.50; 76, $84.50; 78, $75; 109, $95.

Class 71. Boston—20 bbls. kaoline—Bidder, 120, $46; 173, $40; 183, $30.

Class 90. Boston—2,000 gals. lard oil—Bidder 3, $1,380; 59, $1,332; 98, $1,440; 102, $1,380; 122, $1,356.

Class 91. Boston—2,000 gals. linseed oil. Bidder, 39, $1,140; 59, $1,077.80; 78, $1,076; 139, $1,090; 140, $1,050.

Class 92. New York—20,000 gals raw linseed oil—5,000 in bbls. and 15,000 in cases—Bidder, 24, $11,350; 59, $10,357.50; 139, $10,575; 140, $9,900.

Class 93. New York—5,000 gals. boiled linseed oil—Bidder 24, $3,025; 59, $2,709.50; 139, $2,800; 140, $2,575.

Class 94. New York—18,000 gals. spirits of turpentine—Bidder 59, $11,799.90; 144, $11,801.40.

Class 95. Boston—2,000 lbs. venetian red and 1,500 lbs. yellow ocher—Bidder 39, $358.75; 45, $358.60; 77, $335.35; 95, $358.50; 105, $391.25; 125, $353.25; 139, informal, part of class; 157, $439.50; 167, $350.66.

Class 96. Boston—15,000 lbs. white zinc—Bidder 39, $1,140; 45, $1,039.50; 77, $1,019; 95, $1,110; 105, $993.50; 139, $1,200; 157, $965; 167, $1,368.75.

New Corporations

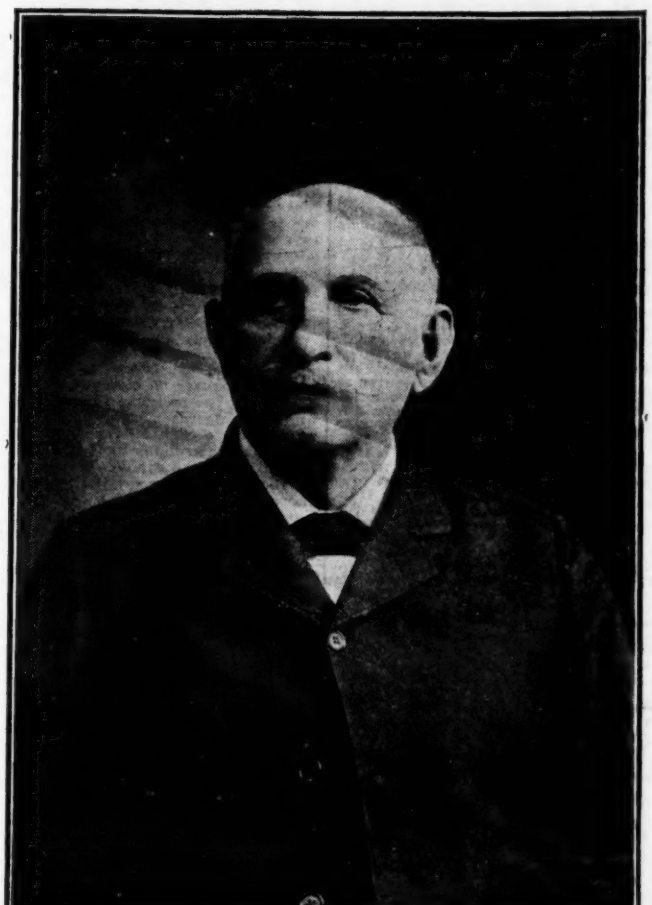
Magic-Man Medicine Co., at New York city. Capital, $100,000. Directors, W. H. Coe, J. L. Tobin, W. S. Allen, New York city.

The Kinsman Drug Co., at Worcester, Mass., to deal in drugs and chemicals. Capital, $10,000; par value, $10. President and treasurer, Fred C. Kinsman, Worcester.

The Voegeli Brothers' Drug Co., Minneapolis, Minn. Capital, $100,000. Incorporators, Thomas and Henry Voegeli, Rudolph Heck and William Ralke, Minneapolis.

E. J. Beggs & Co., at New York city, to manufacture chemicals, etc. Capital, $50,000. Eben J. Beggs, Edward J. Beggs, Arthur E. Beggs, Albert Mury, New York city.

The Earl-Stevens Co., at New Haven, Conn., to manufacture drugs and chemicals. Capital, $100,000. Incorporators, George V. Barton, Charles W. Kohrer and Harold G. Young.



MOSES GOODKIND.

The Elwin Laboratories, at Poughkeepsie, N. Y., to manufacture medicinal preparations, etc. Capital, $20,100. Incorporators, Jas. W. Wood, George Collingwood, Horatio N. Bain, Poughkeepsie.

The Sterling Glass & Machine Manufacturing Co., at Bridgeton, N. J., to manufacture articles of which glass forms a component part. Capital, $150,000. Incorporators, Albert R. McAllister, Eugene L. R. Lanning, Benjamin S. Love, all Bridgeton.

The Hanovia Chemical and Manufacturing Co., at Newark, N. J., to manufacture alkalies and chemicals. Capital, $100,000. Incorporators, Wilhelm Riehl, Newark; Chas. Engelhard, New York city; Wilhelm Heraeus and Heinrich Heraeus, Hanau, Germany.

American Smelters Securities Co.

The stockholders and directors of the recently organized American Smelters Exploration Company, at a meeting held last week by unanimous vote of the entire stock issue amended its name and capitalization. The American Smelters Securities Company, which will succeed to the business of the Exploration Company, has a capital of $77,000,000, divided into $17,000,000 of preferred stock, Series A, 6 per cent; $30,000,000 of preferred stock, guaranteed 5 per cent and $30,000,000 common stock. The American Smelters Securities Company will be controlled and managed by the American Smelting and Refining Company, and the officers of the two companies will be almost identical. The principal properties which have been taken over by the American Smelters Securities Company are: Selby Smelting and Lead Co., at San Francisco, Cal. Its annual business is said to exceed $35,000,000. Tacoma Smelting Company, located at Tacoma, Wash., and operating lead and copper smelters. The plant of the Puget Sound Reduction Company, at Everett, on the Puget Sound. This plant consists of a lead smelter and a lead refinery.

With these smelting plants has been secured a twenty-five-year contract for the entire output of the Bunker Hill and Sullivan Mines, which produce, it is claimed, about 50,000 tons of pig lead per annum.

Under the original organization of the American Smelters Exploration Company, there was taken over from the Guggenheim Exploration Company all of its property interest (with the exception of the Esperanza Gold Mines). To these properties have recently been added at a cost, it is said, of $1,600,000, the Central Smelting Company of Missouri.

Adulterated Drugs in New Jersey.

Since the adoption of a pure food law in 1901, the New Jersey State Board of Health has been active in hunting down offenders. The work concerning the purity of drugs and foods became so important that a separate department was established, with a chief inspector and four assistants.

The State is divided into five districts and the trade in articles known to be liable to adulteration is watched by inspectors in their respective localities. The work of testing is done by the State, and a few years ago an analytical laboratory was fitted up in Trenton for the examination of articles.

According to the last printed report of the State Board of Health the number of specimens examined in the laboratory for the year was 3,526, and the percentage of adulteration was found to be, in the case of foods, other than milk and its products, 36.9, and in the case of drugs the percentage of adulteration was 43.7.

The dirctor of the laboratory says that these figures should not be regarded as an indication of the active proportion of the adulteration of foods and drugs as a whole, for the articles selected for examination were those most frequently adulterated.

The following table gives the number and kind of samples of drugs examined during the year:—

	Above standard.	Below standard.	Total.
Acetanilid	1	..	7
Acid, boric	7	..	7
Acid, salicylic	8	..	8
Acid, tannic	9	1	10
Borax	7	..	7
Cam'ated tincture of opium	4	4	8
Cold cream	1	1	2
Comp. spts. ether	..	1	1
Creosote	0	1	7
Ether, sulphuric	3	..	3
Glycerin	4	3	7
Powdered opium	1	..	1
Oil of sweet almonds	21	8	29
Castor oil	11	..	11
Linseed oil	1	..	1
Pepsin, scale	7	..	7
Potassium chlorate	16	..	16
Sodium phosphate	5	2	7
Spts. camphor	11	2	13
Sweet spts nitre	..	1	1
Tincture ginger	8	4	12
Tincture iodine	30	56	83
Tincture nux vomica	2	4	6
Tincture opium	12	48	56
Distilled water	1	..	1
Sodium chloride	2	..	2
Whisky	..	3	3
Totals	179	139	318

Percentage of adulteration, 43.7.

Latest Appraisers' Decisions.

Powdered Pumice Stone at $6 Per Ton.

The Board of General Appraisers overruled the protest of Charles D. Stone & Co., Chicago, for the admission of their importation of powdered pumice stone at the rate of 15 per cent. ad valorem as provided in paragraph 92 or at 35 per cent. ad valorem under paragraph 97, instead of at the rate of $6 per ton, under paragraph 92. In overruling the protest the board followed the decisions in several former cases.

Sandalwood Chips a Non-edible Drug.

In the case of R. Hillier's Son Co., New York, the Board of General Appraisers sustained the protest made for free entry under paragraph 548, as a non-edible drug, for that firm's importation of 35 bundles of sandalwood chips. This merchandise had been assessed at 20 per cent. ad valorem under paragraph 198 as wood, not specially provided for, but the board decided in accordance with the decision in the J. L. Hopkins & Co. case, which designated sandalwood chips as a non-edible drug and therefore entitled to free entry.

Galmei Assessed as a Color.

In overruling the protest of the Fox & Garhart Specialty Co., Indianapolis, in which it was claimed that an importation of mineral galmei gemahlen should have been admitted free as calamine, under paragraph 514, instead of at the rate of 20 per cent. ad valorem, under paragraph 58, as a color, the Board of General Appraisers found that, although the protestants had entered the merchandise as dry oxide of zinc, and the analysis of the United States Chemist coincided with that description, there was no ground for plac-

ing it under that head, as that claim was not made, and, as it was not calamine, as claimed, the protest was overruled without confirming the collectors' action.

Baltimore Wins Inter-City Bowling Contest.

Bowlers representing the drug trade of this city, Philadelphia and Baltimore met in an intercity contest in this city on May 6. The Baltimore team carried off the honors by winning ten of the twelve games played. The home team finished second, with an equal number of victories and defeats, while Philadelphia scored but two victories. The New York team included Carr and Blake, of Parke, Davis & Co.; Lovis and Judge, of Seabury & Johnson; Norris, of Bruen, Ritchey & Co.; Ruddemann, of the Dodge & Olcott Co., and Malsch, of the Roessler & Hasslacher Chemical Co. The best team score was made by Philadelphia, with 984. The highest individual average was by Ruddemann, of New York, with 196, while the highest game score was made by Brower, of Baltimore, with 258. Detailed scores follow:—

FIRST NEW YORK—BALTIMORE SERIES

NEW YORK.

Carr	157	139	189
Malsch	148	157	145
Blake	180	175	186
Norris	195	181	164
Ruddemann	178	211	210
Totals	828	863	894

BALTIMORE.

Brower	193	185	203
Jahries	205	192	149
Goldsboro	169	172	199
Davis	189	153	150
Coulson	189	184	179
Totals	945	886	880

SECOND NEW YORK—BALTIMORE SERIES.

NEW YORK.

Carr	158	154	113
Malsch	191	202	149
Lovis	138	...	...
Blake	...	153	155
Norris	186	172	159
Ruddemann	200	206	234
Totals	873	887	810

BALTIMORE.

Brower	151	258	161
Jahries	188	175	164
Goldsboro	153	192	164
Davis	163	142	190
Coulson	222	182	190
Totals	877	949	879

FIRST NEW YORK—PHILADELPHIA SERIES.

NEW YORK.

Carr	183	156	...
Malsch	...	...	204
Lovis	206	181	150
Blake	164	166	122
Norris	235	189	180
Ruddemann	171	173	192
Totals	959	865	848

PHILADELPHIA.

Herron	180	187	153
Buchanon	170	157	215
Hallowell	117	161	...
Lee	...	...	235
Donnell	191	136	185
Wright	159	167	191
Totals	817	808	979

SECOND NEW YORK—PHILADELPHIA SERIES.

NEW YORK.

Lovis	200	215	178
Malsch	163	166	166
Blake	175	161	...
Judge	...	...	167
Norris	190	184	174
Ruddemann	224	191	168
Totals	952	917	853

PHILADELPHIA.

Herron	164	175	152
Buchanon	208	162	152
Lee	157	180	167
Donnell	188	195	172
Wright	197	156	172
Totals	914	868	815

FIRST BALTIMORE-PHILADELPHIA SERIES.

BALTIMORE.

Brower	164	165	194
Jahries	186	178	222
Goldsboro	145	202	172
Davis	143	192	189
Coulson	164	198	142
Totals	772	935	919

PHILADELPHIA.

Herron	152	190	171
Buchanon	198	167	184
Hallowell	169	169	185
Donnell	194	154	186
Wright	151	209	136
Totals	864	880	862

SECOND BALTIMORE-PHILADELPHIA SERIES.

BALTIMORE.

Brower	181	172	190
Jahries	170	156	183
Armor	133	156	171
Smuck	133	181	156
Coulson	194	147	246
Totals	811	812	946

PHILADELPHIA.

Herron	181	154	175
Buchanon	140	139	208
Lee	145	...	...
Hallowell	...	145	192
Donnell	169	151	157
Wright	142	161	134
Totals	777	750	866

This is the first time the Baltimore team has won an intercity bowling contest. Last year through some disarrangement of plans, New York and Philadelphia furnished the only competing teams and the latter was the victor. It has been decided to hold next year's contest at Atlantic City on the first Friday and Saturday in May. The following officers of the American Drug Trade Bowling Association were elected for 1905-6:—William J. Carr, of New York, president; L. W. Davis, of Baltimore, vice-president; Samuel Wright, of Philadelphia, secretary and treasurer. The Executive Committee includes C. P. Donnell, of Philadelphia, A Coulson, of Baltimore, and W. Malsch, of New York.

(Special Correspondence to the Reporter.)

Considering Tariff Changes to Increase Revenues.

Washington, May 12, 1905.

Developments of unusual significance have occurred during the past week with reference to the federal revenue question and an organized movement appears to be on foot among the leaders of the Senate having for its object the amendment of existing laws so as to increase the current revenues by from $25,000,000 to $30,000,000 without a general overhauling of the Dingley tariff schedules. Incidentally, the announcement is semi-officially made that the President will call a special session of Congress to meet October 16, and that in all probability the tariff as well as the question of freight rate regulation will then be considered.

The receipts of the Treasury for the fiscal year to date are nearly $35,000,000 less than the expenditures, and while the months of May and June are counted upon to show a surplus of about $10,000,000, it is now a foregone conclusion that the deficit at the end of the fiscal year will be not less than $25,000,000. The Actuary of the Treasury Department is authority for the statement that this deficit will probably be duplicated in the next fiscal year, as the limit of the revenue producing power of the present laws has been reached, while expenditures appear to be steadily increasing. The Secretary of the Treasury is displaying considerable anxiety with regard to the revenue situation and has recently had conferences with prominent majority leaders of the Senate with reference to the best plan of wiping out the current deficit. These conferences and statements made by prominent members of the Senate, have developed the fact that the majority leaders are divided into two camps on the subject of the best remedy to be applied at this time. One faction strongly favors a radical revision of the Dingley tariff, while the other is opposed to any general overhauling of the schedules but favors the adoption of special measures to secure the necessary increase in revenue. The latter faction seems to be more numerous than the former and at any rate is far more aggressive.

The "stand-patters," as they are called, are just now giving their approval with a good deal of emphasis to a statement prepared a day or two ago by Senator Burrows, of Michigan, with reference to the duty of Congress in the present emergency. Senator Burrows served twelve years in the House and during the greater part of that time was a member of the Ways and Means Committee. He was elected to the Senate ten years ago and for the past eight years has served on the Finance Committee, of which he was a member when the Dingley tariff act was framed. He is a recognized tariff expert, but a conservatist who rarely permits himself to be interviewed on revenue questions, a fact that lends special significance to his very frank statement at this time. He announces at the outset that he has been informed by the President that Congress will be called together in October, and he adds that revenue legislation will undoubtedly be taken up at that time. In reply to an inquiry as to whether he favors changes in the tariff for the purpose of raising additional revenue, Senator Burrows says:—

"The tariff, as some one has said, is like a spider's web; touch a single thread and the whole fabric trembles. We cannot touch the tariff without affecting business. Every one waits to see what will be done. Merchants buy no more than is absolutely necessary to meet their immediate wants until the question is settled. A revision of the tariff to increase revenues must mean the imposition of duties on articles now admitted free of duty or a lowering of the rates on dutiable goods, which would flood our market and throw many of our people out of employment or lead to a reduction in wages. Some changes might perhaps be made advantageously; but would it pay to disturb business for that purpose? I do not think any Republican advocates general revision of the tariff."

That even "stand-patters" are beginning to realize the dangers that menace us from the continuance of our high tariff policy without the safety valve of reciprocity is made apparent by the interesting declaration of Senator Burrows that the United States should modify its tariff system in order to be prepared to negotiate reciprocal trade arrangements with the leading countries of Europe. In this connnection he says:—

"One thing this country needs, in my judgment, is a maximum and a minimum tariff for self-protection. In the nine months ended with March we exported $59,929,943 in value of goods to France and imported $69,933,057 from that country. In those exports were included exports to Switzerland to the value of several millions of dollars. We buy from France over $20,000,000 more than we sell to her, which is explained on the ground that France imposes her maximum rates on many of our products, though other great nations get the minimum rates. Without maximum rates we are without redress. Apparently, we shall soon be suffering in the same way from the maximum rates of Germany. If we had maximum and minimum rates, we would not suffer in that way."

In reply to the direct question as to how the revenue necessary to meet the existing deficit can best be procured, Senator Burrows advocates a revision of the internal revenue schedules, and it may be said in this connection that other members of the Senate Finance Committee are devoting their attention to a careful study of the present internal revenue system, while, as heretofore stated in these dispatches, the Commissioner of Internal Revenue now has before him a project of vast importance to the manufacturers of the country in the shape of a comprehensive bill providing free alcohol for industrial uses, reducing the rates on distilled spirits and increasing the charges on compounded or rectified spirits in such a manner that the aggregate revenues from these sources would probably exceed the present collections by nearly $30,000,000.

Another project which is being considered in some quarters is the adoption of a revenue tariff on certain commodities now on the free list. Chief among these are coffee, spices and possibly tea. A tax of five cents per pound on coffee would net $50,0000,000, or more than twice the current deficit. The same rate on spices would bring in nearly $2,500,000, and on tea would net more than $5,000,000. It is urged that if these taxes were applied, they would be paid in part by the foreign exporter, who would be obliged to reduce the price of his goods by at least one-half the amount of the tax. It should be understood that this project is only tentative and at the present time has no official support. Indeed, there is a strong faction in both houses of Congress that would oppose the imposition of revenue taxes on food products of any kind on the ground of the political unwisdom of interfering with what is commonly referred to as "the free breakfast table."

The opportunity for the advocates of the new free alcohol bill with its promise of $20,0000,000 additional revenue, would seem to be very flattering and manufacturers who are interested in the movement should lose no time in bringing pressure to bear upon their Senators and Representatives in Congress who are just now in a receptive frame of mind, superinduced by considerable anxiety over the current and prospective deficit in the Treasury. One of the strongest arguments in favor of the alcohol bill is the fact that it affords a method of raising all the additional revenue required without any change in the existing tariff schedules.

Influence of Atmospheric Oxidation upon the Analytical Constants of Fatty Oils.

BY H. C. SHERMAN AND M. J. FALK.

It has been shown that non-drying and semi-drying oils, on exposure to air, undergo changes similar to those which take place when the corresponding fatty acids are treated with potassium permanganate in alkaline solution, oleic acid being apparently converted into dioxystearic, and linoleic into sativic acid. The "oxidation," therefore, appears to result mainly in the addition of hydroxyl groups, two of these groups taking the place which, in the determination of the iodine number, would have been taken by two halogen atoms. If, as stated by Ballantyne, atmospheric oxidation causes no change in the volume of the oil, the increase in specific gravity and the decrease in iodine absorbing power are to each other as the weight of the hydroxyl group is to that of the iodine atom. Calculating both of these changes on the basis of the original weight of oil the relation would be:—

Percentage increase in specific gravity : Decrease in iodine number : : Oh : I or as 1 : 7.46.

This calculation was applied to "exposed" samples of olive, lard, cottonseed, maize and poppy-seed oils, and has been used successfully by students in identifying "unknown" oils, which had been so altered by exposure as to give iodine numbers considerably below the normal limits. Additional experiments have recently been made to determine whether the proportion applies with equal accuracy, when the oxidation is allowed to go farther. Determinations of acidity and of index of refraction have also been made in some cases.

The principal results are shown in the following table:—

INFLUENCE OF EXPOSURE UPON SOME OF THE ANALYTICAL "CONSTANTS."

	Specific gravity 15.5o —(D) 15.5	Iodine number.	Free acid calculated as oleic. Per cent.
Neatsfoot, fresh.....	0.9169	60.9	....
after exposure.....	0.9285	51.2	10.67
Lard oil, I., fresh*..	0.924	69.3	....
after exposure	0.943	54.6	9.98
Lard oil, II., fresh...	0.917	73.3	0.90
after exposure	0.945	56.2	4.96
Sperm, fresh	0.886	78.5	....
after exposure	0.926	48.9	5.85
Olive, fresh	0.9165	83.8	2.65
after exposure.....	0.924	77.3	....
Almond, fresh.....	0.919	97.0	5.92
after exposure.....	0.9355	83.9	7.84
Cottonseed, I., fresh..	0.920	102.8	0.14
after exposure.....	0.938	89.9	2.96
Cottonseed, II., fresh.	0.923	105.2	....
after exposure.....	0.939	90.2	....
Maize, I., fresh.....	0.924	117.2	....
after exposure.....	0.939	105.7	....
Maize, II., fresh†....	0.9213	118.6	1.13
after exposure.....	0.960	63.4	12.52
Linseed, I., fresh....	0.934	177.1	1.26
after 1st exposure..	0.954	148.1	2.05
after 2d exposure..	0.969	136.9	....
Linseed, I., fresh....	0.934	180.2	1.33
after 1st exposure..	0.942	165.8	2.23
after 2d exposure..	0.966	140.1	4.48
Linseed, III., fresh..	0.934	184.8	....
after exposure.....	0.951	160.0	....
Linseed, IV., fresh..	0.9345	186.3	....
after exposure.....	0.948	159.1	....

	Index of refraction at 15.5° (N)	Specific refractive power $\frac{N-1}{D}$
Neatsfoot, fresh.....	1.4685	0.5115
after exposure.....	1.4692	0.5053
Lard oil, I., fresh*.....	....	....
after exposure.....	....	....
Lard oil, II., fresh.....	1.4697	0.5122
after exposure.....	1.4724	0.5010
Sperm, fresh.....	....	....
after exposure.....	1.4724	0.5102
Olive, fresh.....	1.4712	0.5141
after exposure.....	1.4722	0.5100
Almond, fresh	....	....
after exposure.....	....	....
Cottonseed, I., fresh.....	....	....
after exposure.....	....	....
Cottonseed, II., fresh.....	1.4737	0.5132
after exposure.....	1.4779	0.5090
Maize, I., fresh.....	....	....
after exposure.....	....	....

*This sample may have begun to change before the first examination, as the specific gravity is abnormally high.

Maize, II., fresh†	1.4764	0.5171
after exposure.....	1.4779	0.4827
Linseed, I., fresh	1.4835	0.5177
after 1st exposure.....	....	....
after 2d exposure.....	1.4886	0.5042
Linseed, II., fresh.....	....	....
after 1st exposure.....	....	....
after 2d exposure.....	....	....
Linseed, III., fresh.....	....	....
after exposure.....	....	....
Linseed, IV., fresh.....	....	....
after exposure.....	....	....

It will be seen that, in the case of every oil examined, the index of refraction had increased at the same time with the specific gravity, but not to the same extent, so that the specific refractive power calculated by Landolt's formula $\left\{\frac{N-1}{D}\right\}$ is in each case considerably diminished.

In testing oils of unknown history, this fact will be found useful. An oil having low iodine number and specific refractive power, with high specific gravity, index of refraction and Maumene number may be considered as having undergone partial oxidation, as the result either of exposure or of "blowing."

When the iodine numbers of the oxidized ("exposed") oils are corrected on the basis of the change in specific gravity, according to the theory, as explained above, the results obtained are all within the normal variations of oils of the same speciest but the agreement with the original iodine numbers is not always as close as the accuracy of the analytical methods would allow. Probably a simplified method of correction will be found fully as accurate and more convenient. The follow ing is suggested:—

To find the original iodine number of a semi-drying or non-drying oil, which has been altered by atmospheric oxidation, add 0.8 to the iodine number found on the altered sample for each increase of 0.001 in the-specific gravity $\left\{\text{taken at } \frac{15.5°}{15.5°}\right\}$

The last column in the following table shows the results obtained by correcting according to this rule:—

CORRECTION OF IODINE NUMBERS OF OXIDIZED OILS.

No. Description.	Iodine number after exposure. In fresh condition.	Without correction.	Corrected according to theory.	Corrected by simplified method.
1. Neatsfoot oil.....	60.9	51.2	61.9	61.2
2. Lard oil, I.....	69.3	54.6	71.0	69.8
3. Lard oil, II.....	73.3	56.2	78.8	77.0
4. Sperm oil.....	78.5	48.9	84.7	80.9
5 Olive oil.....	83.8	77.3	83.8	83.3
6. Almond oil.....	97.0	83.9	97.8	97.1
7. Cottonseed oil, I..102.8		89.9	106.2	104.3
8. Cottonseed oil, II.105.2		90.2	104.7	103.0
9. Maize oil, I.....117.2		105.7	119.4	117.7
10. Maize oil, II.....118.6		63.4	124.1	118.4
(No. 3).....92.81		....	94.84	92.86
Average 90.86		....	93.24	91.27
Average omitting				

It will be seen that the simple rule suggested above, gives results sufficiently accurate for all ordinary purposes, even when applied to oils which had lost from 14 to 45 per cent. of their original iodine absorbing power. It is applicable to sperm oil as well as to fatty oils.

When the original specific gravity is not known, the calculation must be based on the average specific gravity for the species of oil under examination. Any error involved in this assumption will be too small to affect seriously the interpretation of the results.—Journal Am. Chemical Society.

†This was one of the samples used by Vulte and Gibson in their investigation of maize oil. Prof. Vulte having kindly furnished one of us a small portion of the sample at that time it was kept in a partially filled bottle for five years. When examined at the end of this time the oil had become so viscous as to be barely fluid at 15.5°, so that the specific gravity could not be determined with certainty to the third decimal place.

‡The discussion in the text applies only to non-drying and semi-drying oils. The results of our experiments on partially oxidized linseed oils are included in the table for comparison and reference although they are not sufficiently uniform to suggest a factor for correcting the iodine numbers of such oils.

Goods in Bonded Warehouses.

The appended figures show the quantity or values of merchandise remaining in bonded warehouses on March 31, 1904, and 1905:—

	1904.	1905.
Asphaltum	.....	.....
Argols, lbs.....	.....	.....
Bristles, lbs.....	371,502	567,146
Cement, lbs.....	14,773,279	11,036,396
Chloride of lime, lbs.....	387,937	.....
Clays, tons.....	1,071	2,463
Coal tar colors and dyes.	$152,302	$201,895
Cocoa, lbs.....	23,897	13,895
Corks, mfrs. of.....	$112,672	$175,261
Dyewood, extracts, lbs..	216,256	.....
Glass, bottles, vials, etc.	$64,616	$113,573
Glass, C., C. & W. unpolished, lbs.....	83,595	56,460
Glass, C. & C., polished, unsilvered, sq. ft.....	28,797	.....
Glass, plate, cast, polished, unsilvered, sq. ft	140,711	230,451
Glass, all other.....	$241,825	$247,291
Glue, lbs.....	343,046	306,583
Glycerine, lbs.....	.....	96,339
Grease	$6,103	$4,589
Gum, chicle.....	1,051,403	1,616,960
Hops, lbs.....	41,532	15,360
Lead in ore.....	21,075,801	45,179,286
Lead pigs, etc., lbs.....	.....	1,121,510
Linseed, bu.....	.....	.....
Mineral water, gals.....	92,504	35,610
Oil, mineral, gals.....	675	.....
Oil, whale and fish, gals.	35,931	15,651
Oil, other animal, gals..	8,184	8,184
Oil, essential.....	$28,599	$47,492
Oil, other fixed.....	$25,330	$27,247
Opium, crude, lbs.....	100,664	178,950
Opium, prepared, lbs...6	34,201	40,485
Paints and colors.....	$29,748	$37,848
Perfumery, etc.....	$18,048	$17,720
Potash, chlorate of, lbs..	21,787	13,948
Soda, caustic, lbs.....	739,562	850,337
Soda, other salts of.....	429,106	236,151
Soap, fancy, perf'd, lbs..	186	583
Soap, all other.....	$998	$3,355
Spices, lbs.....	253,868	31,239
Spirits, proof gals.....	847,170	726,338
Sponges	$87,131	$96,274
Sumac, ground, lbs.....	305,288	135,124
Zinc, pigs and old, lbs...	.....	.....

PAINT MARKET.

NOTE.—Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures. Complete prices current will be found on page 31.

Saturday Noon, May 13, 1905.

The consumption of paints and colors has been seasonably good, owing to the more favorable weather and prospects for an increase in the demand are very promising. In spot carload lots of dry colors good sales for immediate delivery at steady prices have been made. In mixed paints the demand for outside and inside work has improved and manufacturers express themselves as being well satisfied with the volume of business booked thus far. Lead products have been active in the way of deliveries on contracts and additional orders for supplies for delivery this and next month which amounted to a fair volume. Prices are firm and the tendency to values for white lead points upward. Linseed oil remains firm and indications point to a further rise in prices. Spirits of turpentine has advanced in the South and here.

White Lead, Zincs, etc.

WHITE LEAD.—There has been a decided improvement in trade conditions during the past week as is shown by the increased deliveries to consumers upon existing contracts of all the various oxides, but more especially of lead in oil for consumption in this and outlying sections where a large amount of new buildings are under way, as well as others being renovated. Bids for the Panama Canal of 500,000 lbs. lead in oil, 100,000 lbs. red lead, 10,000 gals. varnish and a large assortment of colors and other painters' materials will be opened on the 15th. Competition is expected to be sharp among the various bidders. It is expected at the regular meeting of the board of directors of the National Lead Company to be held on the 18th, some definite announcement will be made regarding the long proposed merger of the various lead interests. There is, as stated above, the usual seasonable demand for lead in oil in a jobbing way and prices are well maintained on the basis of 6¼c. and upward as to quantity and terms of sale, the only exception being when bids like those mentioned above for government work are solicited, then concessions are usually made, otherwise prices remain steady. Dry lead is still scarce for prompt in excess of regular deliveries upon outstanding contracts, and when additional stocks are required buyers have to be satisfied with such stocks as corroders can ship, on the basis of 5¼c. and upward as to quantity and terms of sale. The usual jobbing demand prevails for foreign makes of lead in oil for prompt at 9¼c. and up as to make, quantity and terms of sale.

RED LEAD.—There is still a scarcity of stocks of this oxide in excess of regular requirements for delivery upon existing contracts for prompt. New business, however, is unimportant, though a fair amount is booked now and then for forward on the basis of 6¼c. and upward, as to quantity and terms of sale, for domestic. There is only a limited inquiry for English, but prices are held steady on the basis of 8¼c. and up, as to grade and quantity, and for glass makers' grades at 7¼c. and up, as to grade and quantity. German is without special feature, as buyers, having supplied current wants, are holding off for the present. Prices remain steady at 6½c. for ordinary and 8¾c. and upward for extra grades, as to quantity and terms of sale.

LITHARGE.—Deliveries upon outstanding contracts with the large consumers continue of the usual seasonable proportions. Now and then additional sales are booked for forward, but the quantity is unimportant. Stocks, though not excessive, are sufficient to meet these requirements, and prices may be quoted fairly steady on the basis of 6c. and upward, as to grade, quantity and terms of sale.

ORANGE MINERAL.—French is in fair request for round lots for May-June arrival on the basis of 11c. for five casks and over, but for jobbing store parcels 11¼c. and for other makes at 10½c. and up, as to packing, quantity and terms of sale. German is rather quiet as the bulk of the buyers have not yet worked off their recent purchases of stocks, consequently new business is rather slow at the moment. Prices remain steady on the basis of 7¾c. for ordinary and 10c. and upward for extra grades, as to quantity and terms of sale. There is no change in domestic stocks of which are not over plentiful, and prices are held firm at 8c. and up, as to quantity, less the usual discount terms.

PIG LEAD.—No change in the situation as regards prices, but offerings are being curtailed. Sales in a limited way are reported at St. Louis on the basis of 4.45c. and upward, as to grade. In this section the usual jobbing demand is reported at 4.50c. up to 4.60c., according to grade. London cables soft Spanish firm at £12 16s. 3d.

ZINCS.—Further sales are reported in addition to the regular contract deliveries to the home trade both for prompt and for June delivery on the basis of 4⅝@4¾c., as to grade, quantity and terms of sale for the various brands of New Jersey make. The export demand is also improving and taking the deliveries so far this month they are in excess of last year for the same period. No further changes have been made in either French or German since those of a recent date.

Dry Colors.

REDS.

Trade in spot carload lots has improved and new orders amount to a fair volume. Quotations remain stationary and carmine is offered at $3.50@3.60. Parcels of English venetian are held at $1.15 and upward; vermilion imported, 75c. and upward, and American quicksilver, bulk, at 65c., and in bags at 66c., less discounts, according to quality, quantity and terms of sale.

BLACKS.

The demand continues to be seasonable and a fair volume of orders for carbon and lampblacks for home consumption and for export have been booked. Quotations of the standard qualities remain, firm and manufacturers are quoting parcels of carbon at 5@10c., and high-grade at 15@28c. Lampblacks are quoted on the basis of 4½@6c. for commercial.

BLUES.

Under a seasonable and a fair volume of new orders booked for the week prices rest on a firm basis. Sellers are quoting parcels of Celestial at 4c.; Chinese at 29c. and upward, and Prussian at 27c. and upward. Soluble is held at 29@33c., all less discounts, according to terms of sale.

BROWNS.

Trade during the week has been moderate, but fully up to the expectations of importers and grinders. Quotations remain unchanged and sellers are quoting parcels of Italian siennas, burnt and powdered, at 3c. and upward, and American burnt and raw at 1½c. and upward, according to quantity, quality and terms of sale. Orders for import parcels continue to be light.

GREENS.

The demand has improved and an increase in the sales for the week is noted. Paris green met with small sales to fill urgent wants. Parcels of chrome green, chemically pure, are firm on the basis of 11c. and upward, according to quantity and terms of sale. Paris green in bulk of five tons and over is quoted at 12c., and in packages previous quotations are being named.

YELLOWS.

The demand for spot carloads of ochers for immediate delivery and the withdrawals on orders show an increase. Parcels of chrome, chemically pure, are being well patronized, and manufacturers are quoting 11c. and upward, according to quality, quantity and terms of sale. French ocher is held at 1½c. and upward, according to quality.

Mixed Paints and Colors in Oil.

The demand has improved, due to the warmer weather, and orders for the week are of a fair volume. The probable higher price for linseed oil and spirits of turpentine being advanced serve to influence a strong undertone to the market. Manufacturers are quoting prices as heretofore, less discounts, according to brand, quantity and terms of sale.

Metallic Paints

The demand continues to be active, and manufacturers report large sales and a good call for supplies on outstanding orders. Manufacturers are quoting parcels of standard quality of brown at $19@21 and red at $16@20, less discounts, according to make and terms of sale. Inferior makes are offered at lower prices.

Miscellaneous

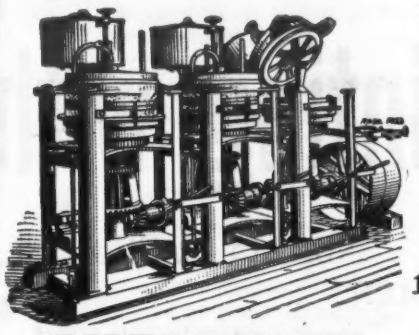
BARYTES. — The market remains firm, and, under a good demand for carload lots and fair sales, prices are firmer in tone. Spot prime white domestic is quoted at $16@17; foreign at $17.50@19, and floated at $17@19 and $19@21, respectively, according to quality, milling and terms of sale.

CHALK.—Under light offerings, account of the scarcity of tonnage, no large sales of importance have been made. Prices remain steady at $3 and upward for the standard qualities, according to quality, quantity and seller.

CHINA CLAY.—The demand for spot

NEW DESIGNS

MILLS and MIXERS



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For Grinding and Mixing all Materials.

Factories Fitted Up Complete and Ready for Work.

CHAS. ROSS & SON CO.
MANUFACTURERS.
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BROOKLYN, N. Y.

Twenty Minutes from New York City Hall, via Bridge and Park Ave. or Myrtle Ave. Cars

The Paint Chemist

Is severe on water, alkalies, and adulterated pigments These things all injuriously affect the quality of paint, but the paint chemist knows and every grinder ought to know that

Standard Zinc Lead White

Cheapens the manufacturing cost of paint only because it is a product of which the process of production has been improved (simplified) and therefore cheapened. As a pigment, in whatever light regarded, it is a distinct advance on the old types of white paint bases. It is bulkier and finer—making more paint; it is more durable—making more satisfactory paint; it is cheaper per pound—making more economical paint. Making paint to-day without this pigment is like making bricks without straw to the Israelites of old.

NOTE.—Both pigment and process are protected by letters patent, and any infringement either by manufacture or use will be rigidly prosecuted.

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Shipments made from Canon City, Chicago or San Francisco.

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For Paints, Varnishes, Oils, Etc.

Let us Know Your Can Wants and Quote You Prices.
We Make the Best Friction Top Can in the Market.
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Manufacturers of Crown Paris White, Patent Dryer, Ochres, Drop Black and Colors.

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The Hull & Liverpool Red Oxide Co., Ltd.
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Manufacturers of Double and Triple Crown Venetian Oxide, "AAAA" and other Venetian Reds, Indian Reds, Oxides of Iron, Crocus, etc.

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IMPORTERS OF

French and other Ochres, V. M. French Zinc, English B. C., White Lead, China Clay, Vandyke Brown, Talc, Etc.
Grinders of Turkey Umber, Italian Siennas, Golden Ochres, Bone Black, Etc.

1879-1905

One Painting with Pure White Lead

No. 243 E. Short St., Lexington, Ky., May 1, 1905.

GENTLEMEN:

Have received a series of your "Postals," but they are not needed to remind an old veteran like myself of the well earned merits of your "PHOENIX" Lead. I first used it in 1879. Painted a Flour Mill on South Elkhorn Creek with it during that year. Both the proprietor and the Mill "are there yet." The latter is still white; has not been painted since, and remains a living witness of the superiority of your valued and unequaled Lead. I am still using it. Very truly yours,

(Signed) J. H. WOOLUMS.

Comment is unnecessary further than to say that the first cost of painting this mill was probably no greater than if some paint that would have lasted two or three years had been used. Measure the cost of paint by the years of service, always.

"Phoenix" (known in some localities as "Eckstein") is one of our brands.
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ANCHOR	CORNELL	MORLEY
ARMSTRONG & McKELVY	DAVIS-CHAMBERS	RED SEAL
ATLANTIC	ECKSTEIN or PHOENIX	SALEM
BEYMER-BAUMAN	FAHNESTOCK	SHIPMAN
BROOKLYN	JEWETT	STERLING
COLLIER	LEWIS	SOUTHERN

National Lead Company

Largest makers of White Lead in the world.

New York, Chicago, Boston, Cincinnati, Buffalo, Cleveland, St. Louis.

Philadelphia, (John T. Lewis & Bros. Co.) Pittsburgh, (National Lead & Oil Co.)

CARBON BLACK

—MADE BY—

GODFREY L. CABOT,

82 Water Street, BOSTON, MASS, U. S. A.

N. B.—Carbon Black is also known as Hydrocarbon Black, American Gas Black, Satin Gloss Black, Jet Black, Silicate of Carbon, etc.

GRADES.—Eclipse [S], Eclipse [G], Elf [S], Elf [G], Sunset, Banner, etc.

SHIPPING POINTS.—Saxonburg Station, Ridgway, Pa.; Creston, W. Va.

STOCKS carried in New York, Chicago, San Francisco, St. Louis, London, Paris Hamburg, St. Petersburg, etc.

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PULP AND DRY COLORS,

STRONGEST CHROME YELLOW IN THE MARKET.

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High Grade Lamp Blacks, Carbon Gas Blacks.

DROP AND IVORY BLACKS, PLUMBAGO,

Coal Tar, Creosote Oil, Naphthalene, Anthracene, Pitch.

THE WEGELIN & WILCKES BLACK MFG. CO., 50 Cliff Street, New York.

NON-FADING REDS

BRILLIANT, UNIFORM, STRONG.

MORRIS HERRMANN & CO.

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KINSEY & JOHNSTON CINCINNATI, O.

F. O. PIERCE COMPANY

Manufacture Painting Materials in all their varied forms—from

Dry Color to "Triune" Color Varnish

170 Fulton Street, New York City.

CAPACITY 150 TONS DAILY

NOTICE TO PAINT GRINDERS, KALSOMINE MFTRS., ETC.

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THE PHILADELPHIA CLAY CO.

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Ceylon and Cochin Cocoanut Oil, Double Star Citronella, Caustic and Carbonate Potash, Opium, Arsenic.

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North, South, East and West goes the OIL, PAINT AND DRUG REPORTER

CARBON GAS BLACK	VINE BLACK
LAMP BLACK	CHARCOAL
IVORY BLACK	MINERAL BLACK
BONE BLACK	PHOTOGRAVURE
DROP BLACK	and PLATE BLACKS
FRANKFORT BLACK	Etc., Etc.

WE STRIVE

to serve you well—make reasonable prices for our Blacks—not to become wealthy, but rich in the esteem of our customers. Our desire is to please you, that your appreciation may prove an incentive to further endeavor.

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PERSIAN OXIDE, ITALIAN SIENNA, and a very BRIGHT STRONG **GRINDING OCHRE**

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For The Trade and Grinders' Use.

LAMP AND CARBON BLACKS.

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LAMP BLACKS

IN BULK AND PACKAGES

OF UNEQUALED QUALITY.

We make Lamp Black of every grade and quality and will cheerfully submit prices and samples. No connection with any combination.

BIHN & WOLFF CO.

Established 1844 BRIDESBURG, PHILADELPHIA PA

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Paints, Colors, White Lead
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carload lots continues to be fair and sales for the week are of a moderate volume. No additional contracts for cargo lots of imported clay could be traced and offerings are limited. Quotations remain unchanged, and sellers are quoting parcels of imported at $11 and upward, and domestic at $8 and upward, according to quality, quantity and seller.

FULLER'S EARTH.—Small spot lots to meet urgent requirements have been traded in. Quotations remain steady on spot parcels at 80c. and upward, per 100 pounds, for powdered, according to quality and terms of sale.

PUTTY.—The demand has been confined to small parcels for immediate consumption and generally speaking trade continues to be quiet. Manufacturers are quoting on the basis of $1.05 and upward for supplies of commercial in bbls. or tubs, per 100 lbs., less discounts, according to quantity and quality, f. o. b. New York.

PUMICE STONE.—Prices are firm in sympathy with the high values quoted in the primary market. The demand here is seasonable and spot parcels of supplies in original casks are selling at 1¾@4c.; selected lumps in bbls., at 3¾@5c. and powdered, pure, in bbls., at 1¾@2c., according to quality and terms of sale.

TALC.—The demand for spot goods and for parcels for import has been moderately fair and sales for the week have been fair. Holders are quoting steady prices on parcels of domestic at $16@25, for French at $20@30, and Italian $30@75 per ton, according to quality, quantity and seller. Recent arrivals have been large, the steamer Fricka from Bordeaux brought 3,650 bags, which lot is the largest arrival for some time past. A good portion of the above goods were sold prior to shipment of same.

TERRA ALBA.—The market remains steady under a fair demand and no selling pressure. Spot carload lots of domestic and foreign are bringing full values, and parcels of American No. 1 are selling at 60c., No. 2 at 45c. and upward, and imported at 90c. and upward, according to quality, quantity and terms of sale.

WHITING.—The deliveries on outstanding contracts have been heavy, and sizable additional new contracts have been booked. Manufacturers are offering No. 2 commercial whiting in round lots at 40c., but the standard qualities are quoted on the basis of 43c. for commercial in lots of and over 500 bbls., or 75 tons, f. o. b. factory, less discounts, according to terms of sales, and 3c. advance for lots of 100 to 500 bbls., or 15 to 75 tons, same terms.

Glues.

Cheaper grades of glues are being mostly patronized and the high and medium grades are meeting with a steady demand. Hide stock glues remain firm and are in fair request at the quoted range of prices. Manufacturers are quoting previous prices on parcels of extra white at 18@24c.; brown foot stock at 8@11c.; low grade at 9@12c., and common bone at 7@9c., according to quantity and seller. Fish glue liquid is selling in lots of 5 and 10 bbls. at 55c@$1.25 per gallon in bbls. of 50 gallons, according to quality, quantity and seller.

Varnish Gums.

Cable advices from Auckland, N. Z., note an unchanged market for kauri gums and additional sales of parcels for shipment to America. The spot supply of Manila nubbles No. 1 and chips is very light and firmly held at unchanged prices. Spot damar is in light supply and firmly held. The demand for spot parcels has increased, and nubbles No. 1 are selling at 6@6½c., and chips Nos. 1 and 2 at 4½@4¾c. and 3¾@4¼c., resepctively. Kauri No. 1 is offered at 30@32c., and Batavia damar at 12½@13c.

(Special Correspondence to the Reporter.)

London Varnish Gum Sales.

London, April 29, 1905.

At the auction held on April 27, moderate supplies were brought forward, which, on the whole, met a fair demand. For copal previous prices were realized and kauri brought full values. Of Zanzibar animi 46 cases were sold, containing fair strong sorts at £12 10s. per cwt.; mixed weak and strong at £8 10s.@£8 12s. 6d.; weak glossy sorts at £5 5s.@£5 10s.; good strong bean and pea at £8 15s; weak at 70s.@85s.; low at 15s. Of 2,945 packages of copal about 900 found buyers. Manilla, good bold pale at 65s., blocky at 56s., dark ambery at 45s., bold nubbles at 30s., bold chips at 24s. 6d.@25s., fair chips at 25s. per cwt.; Macassar, bold yellow at 40s.@40s. 6d., mixed at 33s. 6d., good yellow nubbles at 27s., good chips at 26s., small yellow sorts at 21s.@22s., drossy blocky at 17s. and block at 15s. 6d. per cwt. Of kauri 1,958 packages were offered and 650 sold; good pale rescraped at £8 2s. 6d.@£9 5s., fair at £7, three-quarters scraped at £6 2s. 6d.@£6 5s., half scraped at £5 5s., ordinary rough at 85@86s., and low rough at 37s. per cwt. Of gum damar 88 cases were offered and only 6 cases sold, containing fluted ambery Ceylon at 45s. and ordinary at 34s. per cwt.

Window Glass.

Nothing of special interest in the way of improved trading here has come under our notice, and sales for the week have been of a moderate volume. Here and there some jobbers are shading prices to realize on their stocks. The Manufacturers' and Jobbers' Window Glass Association held a meeting in Pittsburgh on Thursday last, and it was announced that all of the factories will be closed on June 1. It was intimated that the association was to lower prices to meet the cut in prices on small sizes of glass by the machine plants. This matter, however, was not discussed, as there was no object of the association to cut prices, as they have sold the entire output of glass under contracts. The rules of the association in reference to buying and selling of glass have been suspended until the fall and jobbers of the association can now sell their holding of glass in any territory they see fit.

If you desire to be brought in contact with concerns who offer bargains which enter into the manufacture of chemicals, drugs, paints, dyestuffs, fertilizers, naval stores, varnish, white lead, cotton oil, linseed oil, lubricating oil, etc., we would respectfully refer you to the Machinery Department of this publication, which you will find on page 23. Any special information that may be desired will be gladly furnished upon application, for we are in a position to place prospective purchasers in direct communication with the manufacturers of machinery of all kinds.

U. K. Imports of Petroleum.

The imports of petroleum products into the United Kingdom reached a total of 296,797,000 gallons during 1904. In 1885 they amounted to only 71,100,000 gallons and they did not reach the 100,000,000 mark until 1889. The imports from Borneo, Sumatra and Roumania have increased at a rapid rate since 1899, when they were less than 3,000,000 gallons, while during 1904 they amounted to 21,633,000 gallons. The following table shows the imports, in gallons, during each year since and including 1885:

Year.	U.S.A.	Russia.	Other countries.	Total.
1885.	69,818,127	1,291,212	.....	71,109,339
1886.	68,034,623	1,848,160	.....	69,882,783
1887.	68,200,028	6,278,902	.....	74,478,930
1888.	72,217,000	18,087,580	.....	90,305,240
1889.	70,739,663	31,582,885	556,026	102,878,574
1890.	70,993,426	33,165,280	1,073,208	105,679,514
1891.	82,635,624	46,835,116	1,143,431	130,614,171
1892.	89,494,336	38,210,721	2,480,529	130,185,586
1893.	112,904,398	40,908,961	1,311,133	155,124,492
1894.	129,118,671	33,020,826	841,485	162,980,982
1895.	136,824,831	39,043,376	1,278,021	177,146,228
1896.	145,189,142	43,448,285	1,316,418	189,953,845
1897.	146,362,889	38,182,903	1,119,194	185,664,986
1898.	171,561,363	46,012,011	1,606,505	219,178,879
1899.	166,192,455	69,816,972	2,802,430	238,811,858
1900.	153,776,706	87,765,843	12,269,673	253,812,282
1901.	162,791,889	78,206,984	12,668,686	253,667,559
1902.	184,445,173	88,202,788	11,352,539	284,001,500
1903.	131,326,049	133,386,243	19,043,492	283,755,784
1904.	146,370,157	128,793,900	21,633,903	296,797,960

TINNOL—A PASTE THAT STICKS

No Rust Spots on Tin. No Peeling Off. No Discoloring of Labels.
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The Arabol Manufacturing Co. 100 William Street, NEW YORK.
Headquarters for SIZING, PASTES, GUMS and MUCILAGES for all purposes.

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GROUND STRICTLY PURE ALL LINSEED OIL AND BOLTED WHITING.
Also Manufacturer of
Whiting, Paints, Oils and Colors
GEO. W. GROTE, 102d St. & East River, New York
THE OLDEST AND ONLY PLANT OF ITS KIND ON MANHATTAN ISLAND.

TALC

FOREIGN AND DOMESTIC

Silex Barytes
Paris White Whiting
China Clay Asbestine
Fullers Earth Clays
Colors Minerals

W. H. WHITTAKER, 245 Front Street, New York

WHITING

Made from IMPORTED chalk and strictly WATER FLOATED. Special attention given to rubber and paint trade. Correspondence Solicited.
JOHN BRIGGS & CO., Whiting and Paint Manufacturers,
Established 1842. BOSTON, MASS.

Manganese

ALL GRADES.
SILEX, TALC,
CHINA CLAY, Etc.
CHAS. B. CHRYSTAL
116 John St., · NEW YORK.

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Successor to A. W. SMITH, Limited.
Sole Agents in the U. S. and Canada, for G. SIEGLE & CO., G.m.b H., Stuttgart.

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MANGANESE
SULPHIDE of IRON
IN LUMPS, THIN CAKES AND ROUND STICKS
FOR THE GENERATION OF SULPHURETTED HYDROGEN GAS
ROTTEN STONE
EVERITT & CO., 40 CHAPEL ST., LIVERPOOL, Eng.
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MANGANESE

Asphaltum, Varnish Gums, &c.

JOHN S. LAMSON & BRO., 77 Maiden Lane, New York

A BITTER TASTE

Is imparted by 1-700 grain of strychnia in a gallon of water. The slightest tinge of yellow in the white paint base persistently manifests its presence in muddiness of the tints made therewith.

Oxide of Zinc

Is the only white pigment without a tinge of yellow, and is consequently the only pigment that yields pure, clean tints. It is also the only white pigment that is at once economical and durable.

The New Jersey Zinc Co.

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Our Practical Pamphlets:
"The Paint Question."
"Paint: Why, How and When."
"Paints in Architecture."
"Specifications for Architects."
"French Government Decrees."

71 Broadway
NEW YORK

We do not grind zinc in oil. Lists of manufacturers of Zinc White Paints will be furnished on request

(Special Correspondence to the Reporter.)

Chicago Seed and Oil Market.

Chicago, May 11, 1905.

A steady tone in the flaxseed market has been noted during the entire week, the price changes for the most part being only fractional, and there has developed no great buying or selling movement. The fact that the seed is so closely held, and that there is so little of the fresh supply coming to the markets, has shut out those who have a desire to buy, and to those who need any great quantities of the seed the price at which it has recently been selling has been prohibitive. The cash market is upon so firm a basis that there does not appear to be any opportunity of it being broken sharply during the present crop year. On the contrary, there is reason to believe that there will be a still further advance, as the situation seems to warrant it. Not because there is any marked shortage in the supply, but because the seed is in such strong hands that if the outsiders desire to make any heavy purchases they must listen to the dictation of the big interest, and pay the price which is demanded. The foreign situation, to which some of the bears in the trade were looking for relief, has firmed up again, and while the reports from India and the Argentine are conflicting, there is good reason to believe that the production in both of these countries will fall far below that of last year. There has been some decline in the price of the October seed, but the trading in this future is so small that the sale or purchase of a few thousand bushels is apt to influence the market very sharply. The trading in October at this time of the year is a speculation pure and simple, as there is no one in the trade who can tell with the slightest possibility of accuracy what the production for the present crop year will be. There are many who declare that the acreage in the northeast is to be greatly enlarged, while others say that it will be smaller, and one is as likely to be right as the other. The reports continue to come in from the northwest telling of the sowing of seed, but there are as yet no figures given out for comparison, as it is too early. Many districts in North Dakota have not yet sown seed. There is considerable talk of some of the territory which was given over to the cultivation of barley last year, being planted in flax this year, but the reports show that there has been a fairly liberal supply of barley already sown, with indications that the total will be close up to that of last year. The wheat acreage is said to be larger, and the oats seeding up to normal, so that there is apparently no great chance for a very marked increase in the seed sultivation. In South Dakota the seed area is believed to be now under actual cultivation, but no figures have as yet been given out. The same conditions exist in the southern part of Minnesota, while in the northern sections of the state the situation is similar to that described in North Dakota. Some of the smaller of the crushers have been buying seed this week, but only in a small way. The supplies of the seed at both Minneapolis and Duluth have shown a sharp decrease this week. Minneapolis stocks fell off 117,000 bushels, the change being largely accounted for by the withdrawal of seed from the public elevators, as the shipments have been small. At Duluth the stocks decreased to the extent of 368,000 bushels, and was principally due to the fact that the season for navigation is now fully opened, and that several cargoes of seed have gone out of that port to Chicago and to the east. The stocks here referred to were those posted on last Saturday, and since that time there have been heavy withdrawals, which will reduce the supply at Duluth still more. For the current week the shipments from that city have been 425,900 bushels, the heaviest since last October. There is a considerable difference in the stocks of seed at the Lake Superior port as they now stand and as they were one year ago, and the difference is in favor of last year, notwithstanding the fact that much has been said of the tremendous supply of seed in the northwest. On last Saturday the stocks of seed at Duluth were 7,259,000 bushels, in round numbers, while on the corresponding day last year they reached the big total of 8,065,000 bushels. From the present condition in the oil trade this supply is likely to be cut down more sharply than it was last year, as the ownership of

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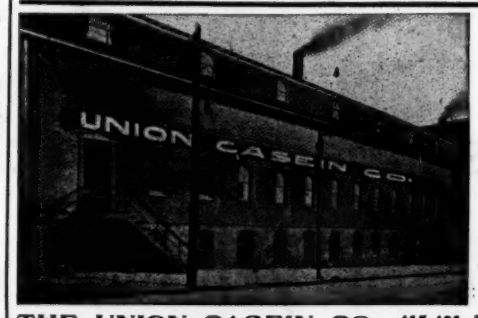

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the seed is confined to a few crushers who will not fear to make heavy conversions into oil. It would appear that it is to the interest of the big companies to cut down the visible supply as much as possible, by changing the seed into oil where it cannot be kept account of publicly, for the reason that a big supply of seed at the opening of the new crop year may have a bearish effect on the market, and may pull down the fabric of high priced seed which has been constructed with such care and skill. It would not be surprising, therefore, to see the stocks at Duluth diminish with great rapidity. Comparative daily receipts of flaxseed at Chicago for the week ending May 10, 1905, and for the corresponding period in 1904:—

	This week.	Year ago.
Thursday	3	5
Friday	..	1
Saturday	..	2
Monday	2	6
Tuesday	..	11
Wednesday	1	1
Totals	6	26

Comparative daily receipts of flaxseed, at Minneapolis and Duluth, for the week ending May 10, 1905, and for the corresponding period in 1904:—

	Minneapolis This week.	Minneapolis Year ago.	Duluth This week.	Duluth Year ago.
Thursday	7	5	1	18
Friday	3	6	5	4
Saturday	2	4	..	6
Monday	5	11	3	15
Tuesday	3	1	6	6
Wednesday	2	1	1	5
Totals	22	28	16	54

Shipments of flaxseed from three principal points for week ending May 10, 1905:—

	Chicago.	Minneapolis.	Duluth.
Thursday	....	1,100	....
Friday	....	950	....
Saturday	....	12,550	189,622
Monday	4,393	850	102,375
Tuesday	9,060	1,820	133,903
Wednesday	....	....	....
Totals	13,453	17,870	425,900

Daily closing prices of flaxseed at Chicago for the week ending May 10, 1905:—

	No. 1, N. W.	S. W.	May.
Thursday	$1.39	$1.25	$1.25
Friday	1.39	1.25	1.25
Saturday	1.39	1.25	1.25
Monday	1.39	1.25	1.25
Tuesday	1.39	1.25	1.25
Wednesday	1.39	1.25	1.25

Daily closing prices of flaxseed at Minneapolis for the week ending May 10, 1905:—

	Cash.	Arrive.	May.
Thursday	$1.39¾	$1.39¾	$1.39¾
Friday	1.38¾	1.38¾	1.38¾
Saturday	1.39½	1.39½	1.39½
Monday,	1.40¾	1.40¾	1.40¾
Tuesday	1.39¼	1.38¾	1.38¾
Wednesday	1.38¾	1.38¾	1.38¾

Daily closing prices of flaxseed at Duluth for the week ending May 10, 1905:—

	Cash.	May.	July.	Sept.	Oct.
Thursday	$1.40¼	$1.40¼	$1.38¼	$1.28½	$1.27¼
Friday	1.40½	1.40½	1.38	1.28½	1.27¼
Saturday	1.40½	1.40	1.38	1.29	1.27¼
Monday	1.40	1.40	1.39	1.28	1.27¼
Tuesday	1.40	1.40	1.39	1.28½	1.25
Wednesday	1.40	1.40	1.40	1.27	1.24

Following shows the number of cars received at the three principal markets for the crop year to date with comparisons for the two previous years:—

1905	20,183
1904	28,760
1903	33,173

Stocks of seed in public warehouses, Saturday, May 6, 1905, and on the corresponding day last week and last year:—

Duluth	7,259,000	7,527,000	8,065,000
Minneapolis	1,029,000	1,146,000	604,900
Chicago	5,856	26,236	24,201

LINSEED OIL.—The market for oil has shown no change in price during the week, but the tone has been firmer, and there is reason to believe that the price will be lifted within the coming week. The demand has been strong, the buying active, and all indications point to a continued activity in the trade. Many of the smaller crushers who have oil at all to sell are asking 45c., and in some instances more, save where they come in direct competition with the large companies. It is a positive fact that few of the independents are able to realize any profits on sales of oil at 44c., especially since the demand for cake has fallen away, and left no outlet for the by-product. It is reported in the trade that overtures have been made to the larger company looking toward an advance in the price of oil, as present values are ruinous to many of the smaller crushers. There is an excellent inquiry from the jobbers and the wholesalers, and under ordinary conditions a fair margin of profit would result to the crusher, but it appears to be the policy of the controlling interest in the trade to refrain from lifting the price as long as possible, apparently believing that its interests can best be conserved by giving the trade some benefit of the corner. Philanthropy, however, is not business, and it is likely that there will be no objection to a higher price for oil in the near future. The teamsters' strike has had some effect upon the Chicago trade, though as yet the result is not serious. A few of the wholesale houses which have been placed on the unfair list by the strikers have contracts for the purchase of oil and have insisted on deliveries under the terms of the contract. In some cases the deliveries have been made only with great difficulty, while in some very few instances the crushers have found it absolutely impossible to get the oil to the stores. As yet none of the teamsters in the direct employ of the crushers has refused to attempt the delivery, but if the entire union becomes involved, these men will be called out with the rest, which will probably mean a temporary suspension of the local oil business. Such a contingency, however, is not anticipated.

LINSEED CAKE.—The demand for cake has been reduced almost to the vanishing point, and it is doubtful if there were any orders filled here this week. The foreign situation has so shaped itself that there is now no inquiry abroad for the product, and as the domestic inquiry for meal is practically at an end, the entire market is in a state of dullness. This is no more than has been expected in the trade for the past two months, the one thing which has been surprising being the manner in which the demand from the other side held up. This trade was confined to the sale of cake for immediate shipment, there being absolutely no sale for the futures. Now the demand for the former has fallen away, and nothing is expected in the way of betterment till the fall season begins. The crushers which are running are accumulating some cake, and while they have yet made no reduction in the price, it is likely that they will do so, as the question of value is secondary to the one of disposing of the product. Present values range from $25 to $26 per ton, but they are purely nominal, as none could be sold at these prices.

CORN OIL.—The demand for oil is still good, and there has been no change in the price, though the tendency is upward. The foreign trade is on a satisfactory basis, and the sellers still report that they are able to obtain 10c. more per hundred for the oil when sold for export than for domestic purposes. Quotations are $3.40 per hundred in barrels, export, and $3.30 domestic.

LARD.—Considerable interest has been manifested in lard this week, and the price has been somewhat stronger, though the gain has not been marked. The offerings were not very heavy, and there was a moderate demand from the regular sources, while there was some speculative buying in the pit. The feature of the trade has been the wiping out of practically all the difference in the cash and the May product. There were moderate deliveries of lard during the week on May contracts. Export trade was reported to be fair and some of the exporters accepted a few lots from interior points to go via the gulf route. There has been a heavy run of hogs for the latter half of this week, and this is expected to have a tendency to weaken the market before the close of the calendar week. Cash lard closed to-day $7.20; loose, $6.82½. Leaf lard has been in fair request at $6.87½, and there is some inquiry for neutral at $8.25 to $8.50.

STEARINES.—Makers' nominal asking prices remain unchanged. Round lots could be secured with firm bid at considerable under this figure. We quote nominally as follows:—Prime oleo stearine, 8¼c. Chicago, 8¼c. Missouri River; No. 2, 7¾@7¾c.; lard stearine, 7¾@8c.; mutton stearine, 8@8¼c.; tallow stearine, 5½@5¾c.; grease stearine, 4@4½c.

OLEO OIL.—Cables report large sales at 59 florins—this price bid and refused—holders asking another florin advance. Domestic trade quiet. We quote nominally unchanged as follows:—Extra, 9¾@10¼c.; No. 2, 9¼@9¾c.; No. 3, 7¼@7¾c.; oleo stock, 6¾@8½.

TALLOWS.—London cables report 1,200 casks offered, 40 per cent. sold at 3d. decline. Local market dull with little trading. Holders seemingly inclined to be more reasonable in their asking prices. We quote nominally as follows:—Choice edible, 5¼@5¾c.; ordinary, 5⅛@5¼c.; prime packers', 5c.; choice country, 4¾c.; prime city, 5¼@5¼c.; No. 1 country, 4⅜@4½c.; No. 1 packers', 4⅜c.; No. 1 renderers', 4⅜c.; "B" country, 4@4¼c.; "B" packers', 4¼@4¼c.; No. 2 country, 3⅞c.; No. 2 packers', 3½@3⅝c.

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Closing Telegram.

Chicago, Ill., May 12, 1905.

Duluth flaxseed closed at, cash, $1.42½; September, $1.26; October, $1.24. Minneapolis, cash, $1.40¾. Chicago closed, $1.39, No. 1 Northwestern; cash and Southwestern, $1.25. Oil firm at 44c.

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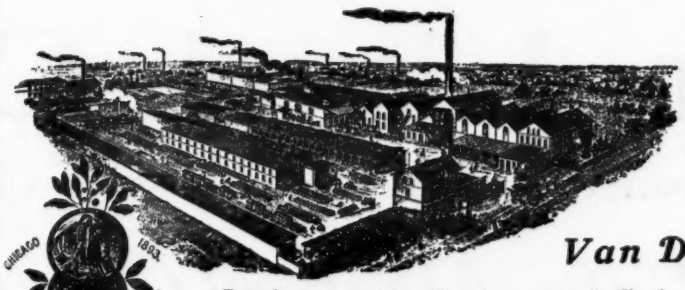

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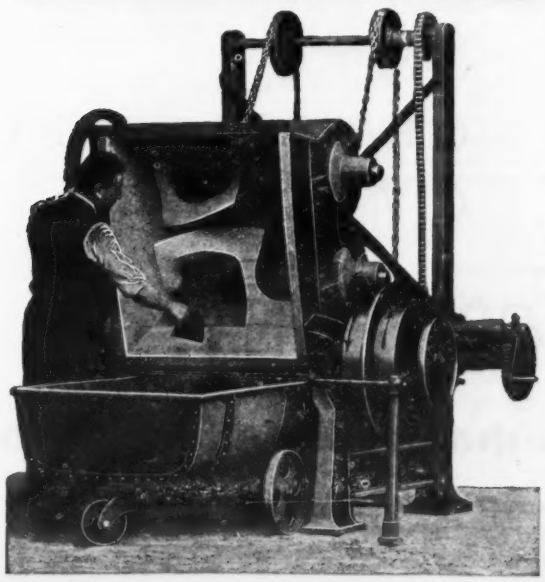

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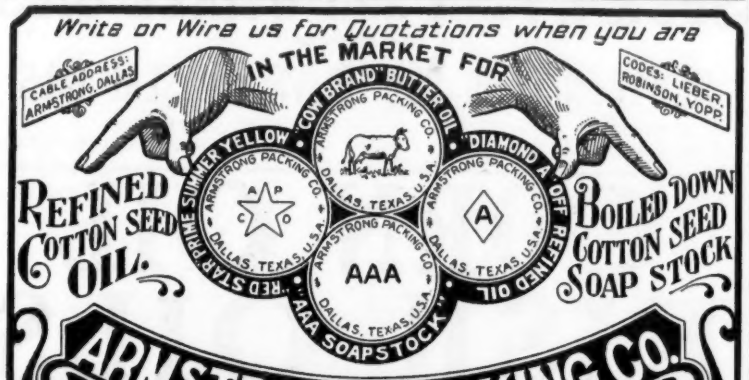

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OIL MARKET.

NOTE.—Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures. Complete prices current will be found on page 31.

Saturday Noon, May 13, 1905.

Vegetable Oils

LINSEED.—Though the price of seed and the foreign market for oil have advanced several points during the past week, crushers on this side as yet have made no change in their quotations, though it is possible one may be made early next week should the present advance be maintained. There is a good demand for May-June oil, and sales have been made of several single car lots at 46c., and further sales could be done, with July included, on the same basis, but sellers are indifferent at the moment. Deliveries upon outstanding contracts with consumers for prompt and May are being drawn upon freely and this gives an active appearance to trade. There is also a good jobbing trade for spot oil at 46@47c. for Western and State, but the bulk of these orders are generally for city oil, which commands 2c. more all around. For further details of the seed situation see our Chicago letter.

COTTONSEED. — The market has further advanced for the week from ¾c. to 1c. for prime yellow for prompt and futures. Though prices may fluctuate a few points either way in the near future the tendency, however, is to a higher range of values. The sharp advance in English linseed oil, as well as all competing seed oils in France, which have been depressed of late to offset the demand for cotton oil, has broken away and inquiries are now daily being received for not only soap grades, but other high grades of oil, and, while no important transactions have been consummated, the trend is towards active trading in the near future. Then another element of strength has developed in the free buying by packers, whom it was supposed had sufficient stocks to carry them well into the new season, have taken during the week from 5,000 to 6,000 bbls. of bleaching oil at 25@25¼c. loose Chicago, and from 5,000 to 8,000 bbls, prime yellow at 22@22½c. loose at Texas and Southeast points for prompt and June delivery. Bids of 25½c. loose Chicago have been turned down for several round lots for June-September of bleaching oil, as sellers preferred to hold rather than sell at this figure. While there has been more disposition shown by refiners to buy crude the mills are only selling a few single tanks, the sales aggregating about 60 tanks for prompt and June at 20@20½c. for the Carolinas and 21@21½c. for Georgia and Alabama, while 22c. was paid for Memphis, as the bulk of the leading traders left to-day (Saturday) for New Orleans to attend the annual meeting, it is safe to predict that when a "general round-up" is had prices for crude will sharply advance and that the price of September refined will pass 30c. before the close of the meeting. Winter oils are all in good request, with indications that prices may further advance at an early date. The market closes firm, with limited offerings of prime at 27¼c. bid and 27½c. asked, for May-June 27¾@28c., July 28½@28¾c., August 28¾@29c., September 29½@30c. In speaking of the transactions in detail, the market opened on Monday with sales 100 September refined at 28¾c., 200 May 26¾c., 5,000 May 26½c.; receipts, 2,034 bbls. Tuesday, trade more active; 3,400 May 26¾c., 100 July 27¾c., 100 July 28c. and 100 September 29c.; receipts, 2,077 bbls. More demand on Wednesday, with sales 400 May 27c., 200 do. 27¼c., 200 September 29½c., 4,000 July 28½c., 500 June 28c. and 2,000 September 29¾c.; receipts, 1,746 bbls. On Thursday prices eased off later in the day; 400 May 27½c., 200 do. 27¼c., 200 July 28½c., 200 August 29c., 200 September 29¾c., 500 do. 29½c.; receipts, 1,490 bbls. Friday, more demand, and prices recovered the decline of the previous day; 1,500 September 29¾c., 200 do. 29½c., 500 June 27¾c., 200 August 29c., 10 tanks Texas yellow 22c. loose and 10 tanks Southeast yellow for May-June 22@22½c. loose; receipts, 3,062 lbs. Nothing of importance was done, as usual on Saturday, which is a half-holiday.

EXPORTS OF COTTONSEED OIL FROM NEW YORK, BY COUNTRIES.

	For week ending May 11, 1905.	Since Sept. 1, 1904.	Same time last year.
Africa, Algiers	....	10,750	2,519
Egypt	90	3,548	150
South	....	960	645
Argentine Republic	85	859	2,718
Australia & New Z.	....	1,419	903
Austria	400	400	14,957
Belgium	900	4,249	2,210
Brazil	254	10,317	10,523
Br. East Singapore	....	60	.....
British Guiana	....	1,335	1,364
British West Indies	58	5,105	4,322
Central America	3	67	81
Chili	50	1,830	131
China	....	50	.....
Costa Rica	....	21	.....
Cuba	....	1,068	201
Danish West Indies	....	84	101
Denmark	....	3,003	4,746
Dutch Guiana	....	46	.....
Dutch West Indies	20	26	4
Ecuador	....	.....	20
Egypt	....	192	.....
England	400	10,262	17,547
France	1,495	94,105	75,257
French Guiana	....	219	276
French West Indies	....	5,191	5,158
Germany	600	17,093	10,525
Gibraltar	....	500	.....
Haiti	1	4	.....
Italy	475	68,311	19,792
Jamaica	....	31	.....
Japan	....	20	56
Malta	....	3,568	4,022
Mexico	1	519	90
Morocco	100	100	110
Netherlands	525	8,755	5,424
New Brunswick	....	20	.....
Newfoundland	....	355	601
Norway & Sweden	50	3,880	3,889
Peru	....	14	36
Porto Rico	....	185	319
Roumania	....	125	.....
Russia	....	25	20
San Domingo	5	2,347	2,084
Scotland	810	5,210	3,191
Spain	....	.....	3
Turkey	....	1,267	420
U. S. Colombia	2	982	653
Uruguay	125	3,586	3,059
Venezuela	....	169	112
Totals, bbls.	6,448	272,597	198,350

EXPORTS OF COTTONSEED OIL FROM NEW ORLEANS, BY COUNTRIES.

	For week ending May 11, 1905.	Since Sept. 1, 1904.	Same time last year.
Austria	4,260	27,417	12,346
Belgium	....	10,864	680
Central America	....	.....	10
Cuba	....	1,955	815
Denmark	....	2,800	4,941
England	....	22,130	5,776
France	4,750	25,810	13,720
Germany	135	22,995	13,306
Holland	90	8,510	.....

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Ireland	....	740	.....
Italy	150	941	140
Mexico	....	.....	750
Netherlands	....	92,210	32,945
Scotland	930	4,717	975
U. S. Colombia	....	15	21
Totals, bbls.	10,315	221,104	86,485

EXPORTS OF COTTONSEED OIL FROM BALTIMORE, BY COUNTRIES.

	For week ending May 11, 1905.	Since Sept. 1, 1904.	Same time last year.
Belgium	....	980	100
Denmark	....	1,630	.....
England	....	.....	1,825
France	....	100	450
Germany	....	3,385	550
Ireland	....	96	.....
Netherlands	....	3,037	3,092
Scotland	....	300	415
Totals, bbls.	....	9,528	6,432

EXPORTS OF COTTONSEED OIL FROM NEWPORT NEWS, BY COUNTRIES.

	For week ending May 11, 1905.	Since Sept. 1, 1904.	Same time last year.
England	....	1,591	1,082
Germany	....	21,939	11,726
Netherlands	3,593	10,502	3,709
Scotland	....	.....	83
Totals, bbls.	3,593	34,032	16,600

EXPORTS OF COTTONSEED OIL FROM GALVESTON, BY COUNTRIES.

	For week ending May 11, 1905.	Since Sept. 1, 1904.	Same time last year.
Austria	3,532	11,053	15,793
Belgium	....	7,504	.....
England	....	1,980	204
France	2,606	5,956	5,911
Germany	....	3,228	5,575
Holland	....	4,350	.....
Ireland	....	.....	160
Mexico	....	13,399	18,202
Netherlands	....	67,714	39,052
Totals, bbls.	6,138	115,184	84,897

TOTAL EXPORTS AT PRINCIPAL PORTS.

From—	For week ending May 11, 1905.	Since Sept. 1, 1904.	Same time last year.
New York	6,448	272,597	198,350
New Orleans	10,315	221,104	86,485
Baltimore	....	9,528	6,432
Newport News	3,593	34,032	16,600
Galveston	6,138	115,184	84,897
Totals, bbls.	26,494	652,445	392,764

The following are the official returns of the exports of cottonseed oil, in gallons, during the months of March, 1905 and 1904, furnished by the Bureau of Statistics, Washington:—

	1905.	1904.
Baltimore	93,900	10,000
Brazos de Santiago	72	.....
Champlain	574	.....
Corpus Christi	52,380	77,430
Detroit	56,921	6,740
Fernandina	2,500	.....
Galveston	1,103,837	712,619
Huron	40,551	53,609
Key West	.....	26
Memphremagog	.....	81
Mobile	1,435	80
New Orleans	2,414,847	450,750
Newport News	105,200	98,228
New York	1,976,262	1,456,441
Norfolk & P.	.....	18,800
North & South Dakota	4,034	7,272
Paso del Norte	6,026	.....
Pensacola	83,450	.....
Philadelphia	55,000	.....
Saluria	219,220	614,794
San Francisco	867	724
Savannah	39,797	57,975
Vermont	55	4,179
Total, gallons	6,202,894	3,462,476

TOTAL MONTHLY STATEMENT.

	1902.	1903.	1904	1905.
Jan.	3,533,840	1,252,774	3,291,023	5,195,440
Feb.	2,201,824	2,908,178	3,441,645	6,465,625
March	2,272,824	3,025,721	3,462,476	6,202,894
April	2,225,276	2,038,959	2,296,367	.....
May	2,775,577	2,109,348	1,761,734	.....
June	1,761,937	1,283,174	2,463,628	.....
July	1,876,842	845,567	2,121,045	.....
Aug.	1,626,290	1,187,819	1,927,850	.....
Sept.	2,725,093	1,267,153	2,188,705	.....
Oct.	4,091,322	1,572,948	2,969,954	.....
Nov.	4,696,601	3,441,762	5,226,368	.....
Dec.	5,063,109	3,987,295	4,264,877	.....
Totals.	34,870,017	27,865,212	35,412,672	.....
Average	2,905,835	2,322,101	2,951,060	5,954,653

(Special Cablegram to the Reporter.)

Liverpool Cotton Oil Market.

Liverpool, May 12, 1905.

Cotton oil is very firm at £17 10s. Cake and meal steady at £5 18s. Seed better feeling at £5 13s. for Egyptian and at £4 17s. 6d. for Sea Island.

(Special Cablegram to the Reporter.)

Marseilles Cotton Oil Market.

Marseilles, May 12, 1905.

The market is very dull at unchanged prices. Prime summer yellow, 93 francs; prime winter yellow, 47 francs, prompt delivery. Future shipments 3@5 francs dearer.

(Special Cablegram to the Reporter.)

Rotterdam Cotton Oil Market.

Rotterdam, May 12, 1905.

The market is dull, and prices are nominal. Prime summer yellow, spring months' shipment, 21 florins; butter oil, spring months' shipment, 22 florins per 100 kilos.

(Special Cablegram to the Reporter.)

Trieste Cotton Oil Market.

Trieste, May 12, 1905.

The market is firmer, but prices are unchanged. Prime summer yellow, summer months' shipment, 45 francs; butter oil, summer months' shipment, 47 francs per 100 kilos, c. i. f. Trieste.

(Special Cablegram to the Reporter.)

Hamburg Cotton Oil Market.

Hamburg, May 12, 1905.

The market is firm at unchanged prices, as follows:—Prime summer yellow, prompt shipment, 34½ marks; off oil, 33 marks per 100 kilos for prompt shipment, f. o. b. Hamburg. Prime Texas meal, prompt shipment, 132 marks; cake, 129 marks; bolted, 136 marks per ton, c. i. f. Hamburg.

(Special Correspondence to the Reporter.)

Marseilles Oil Seeds Market.

Marseilles, May 3, 1905.

The statement of arrivals of oil seeds at this port for first four months show the enormous falling off of 501,790 quintals of 100 kilogs, or say 50,000 tons, as compared with last year. The following circumstances which aggravate the situation must be borne in mind:—

First. Last year was a small year, as compared with 1902.

Second. The deficit can now only go on increasing as the year advances, because what little seed the deficient crops supplied has been forwarded by now.

The bulk of the deficiency falls upon the quantities producing edible oil and competing with American cottonseed oil. As a matter of fact, whatever reports may have been circulated to the contrary, no quantity worth mentioning of American cottonseed oil has gone to the soap works; values have always been just too high.

(Special Telegram to the Reporter.)

Dallas Cotton Oil Market.

Dallas, May 13, 1905.

No trading to amount to anything this week, but few sales of yellow made at 22c.; crude at 20c.; extremely heavy rains all over State and cotton late and washed; stock of crude very light.

(Special Telegram to the Reporter.)

New Orleans Cotton Oil Market.

New Orleans, May 13, 1905.

Very little oil offering, especially prime. 19½c. bid Texas; 20c. Valley. Cake firm at $25.50; meal, $25.87½ ship side New Orleans.

CHINA WOOD OIL.—The market has been moderately active and fair sales of parcels on the spot and nearby afloat at 6c. and 6⅛c. have been effected. Small jobbing parcels are bringing ¼@½c. more. Prices are stiffening, owing to the higher markets for linseed oil and spirits of turpentine.

ROSIN OIL.—Prices have been advanced 1c. per gallon, and manufacturers are now quoting on the basis of 19c. for carload lots f. o. b. New York, and 19½c. for jobbing parcels, first run of rosin. The rise is attributed to the sharp advance in prices of common rosin. The demand, however, has been moderate and sales for the week show but a slight increase.

Cocoanut Oils, Etc

CEYLON.—The market is a shade easier under free arrivals, but not quotably lower. Sales are being made in a jobbing way to meet current wants at 6⅝@6½c., as to seller and size of the order, about 50 tons being taken within the range. June arrival is held at 6¼c., and shipments at 6⅛@6¼c., as to quantity and date of shipment.

COCHIN.—There have been free arrivals, but so far there is no pressure to sell, as the bulk is for consumption. Spot may be quoted at 7¼@7½c., as to packing and seller, with May-June shipments held at 6¾@6⅞c., as to date of arrival.

CORN.—The market is easier in all positions, with mills selling car lots for May or early June at 3½c. Second hands might shade this for prompt for a few single car lots; only a limited jobbing demand is reported for store parcels at 3.60c., and up, as to the size of the order.

PALM.—There is not sufficient demand to test the market. Meanwhile jobbing sales are being made on the spot at 5⅛@5¼c. for red and for Lagos 5¼@5½c., as to quantity and seller.

OLIVE.—Though the foreign markets are all reported firmer, there is no demand of any consequence, as buyers, both here and abroad, only take such lots as their current wants require. Yellow is selling from store in a jobbing way at 54@55c. and for May arrival at 51½@52½c., as to quantity and seller. Green is steady at 56&57c. Olive foots are dull at 5½c. for choice and off grades and 5¼c. and up, as to quality and size of the order.

(Special Correspondence to the Reporter.)

Marseilles Olive Oil Market.

Marseilles, May 4, 1905.

Business in all branches is very slack, with a light amount of idle money; the Russian war is one of the principal causes of the uneasiness in trade.

Yellow olive oil and prime green foots are both in poor demand, prices are, however, kept up by the scarceness of stocks; £31 is freely paid for best yellow and £22 for best green foots; while low qualities are being sold at £22 and as low as £21. Green and yellowish olive oil paste has been selling at £20.

MUSTARD.—Only a small retail demand for spot goods to cover current wants is reported at 55c.

RAPE.—There have been further sales of the burning grades for prompt at 62c., but for blown and refined there is only a limited demand on the basis of 54c. and up, as to quantity and seller.

Animal and Fish Oils.

COD.—The consuming demand continues to be seasonable and dealers are maintaining prices on the basis of 41@42c. for Newfoundland and 35@37c. for domestic, according to quality, quantity and terms of sale. Round lots for shipment to New York, duty paid, delivered, are quoted at 40c. and upward for Newfoundland, but some sellers would have probably accepted bids at 39c.

DEGRAS.—The jobbing demand has been fair, but trading in invoices for shipment from primary markets has been slow. Round lots of German for shipment to this port, duty paid, delivered, are held at 2⅝c. Small spot jobbing lots are bringing on the basis of 2⅞@3⅛c. for German. Other kinds remain quiet without quotable change.

LARD OIL.—Trade in carload lots has been light and the movement of jobbing parcels continues on a moderate scale. Prices remain about steady, and manufacturers are quoting carload lots of prime winter at 58c. and off prime at 50@51c. Jobbing spot parcels are bringing 2@3c. more. Prices of the other grades are quotably unchanged.

MENHADEN.—The market for crude oil has been more active, and sales included 300 to 400 bbls. of Southern, as it runs at an average price in the neighborhood of 16½@17c., f. o. b. fish works, Baltimore, which prices show a slight gain over last prices paid by exporters, and about 300 to 500 bbls. of Northern oil, sold by independent fishermen to the home trade at a price in the neighborhood of 18c., basis A. We learn that the holdings of crude oil by the fisheries company have been materially reduced. As near as could be learned there remains unsold 800 bbls. of Northern oil held by independent fishermen here and 800 bbls. of Southern oil held in the South by Southern fishermen. Pressed is selling in small lots on the basis of 28c. for spot brown, strained. We still hear of rumored offerings of large lots of brown and light strained oil embracing 100 bbls. and upward at about 24@25c. delivered, respectively. It is intimated that the latter offerings are being received from Philadelphia, where large holders are bringing their oil in competition with strained oil held for refiners here. It is expected that the menhaden fishing fleet, owned by the Fisheries Co., will probably begin fishing within the next two weeks.

NEATSFOOT.—Aside from a moderate jobbing business, few large sales have been effected, and trade in this department has been rather quiet. Manufacturers are offering carload lots of prime at about 49c. and cold test oils on the basis of 96c. for 20 degree c. t. Jobbing parcels are meeting with moderate sales at 1@2c. advance.

TALLOW OILS.—In acidless oil the demand for home consumers and exporters has been fairly good and a fair number of carload lots at about 56@57c., respectively, changed hands. In prime only moderate sales at 51c. and upward were effected. Jobbing parcels sold at 2@3c. higher.

RED OIL.—The demand has been mostly confined to small spot lots of saponified at 4⅞@5½c., according to make. In carlots only a light business has been done at prices ranging from 4¾@5c. for special brands and ½@¾c. less for inferior makes. Stocks are fair, but not excessive and well held by manufacturers.

WHALE AND SPERM.—The New Bedford market for crude oil remains quiet and unchanged. The approximate stock of crude oil at New Bedford on May 8 was 7,750 barrels and the stock of whale oil 195 barrels. The local demand for pressed sperm oil continues to be seasonal and round parcels of natural sperm winter are offered at 61c. and natural winter whale is held at 44c. Small parcels to consumers are jobbing at 1@2c. higher.

Mineral Oils.

A fair volume of new orders for various kinds of lubricants have been booked and the withdrawals on outstanding orders are steadily increasing. Prices remain stationary and manufacturers continue to quote as heretofore, less discounts, according to the quantity, brand and terms of sales. Grades not up to the standard qualities are quoted at lower prices.

Oil Cake, Meal, Etc.

There has been more inquiry from England the past few days for linseed cake for prompt shipment, and sales have been made of several hundred tons on the basis of $28.06, but for futures there is almost no demand, hence prices are not quoted. Our telegrams give the cotton cake and meal situations more in detail within the cotton belt.

Exports of Flaxseed from New York.

BY COUNTRIES, IN BUSHELS.

	For past week.	Since Aug. 1, 1904.	Same time 1903.
Belgium	....	.....	55,722
Denmark	....	.....	8,173
France	....	.....	25,257
Netherlands	....	.....	108,714
Totals	....	.....	197,866

Exports of Flaxseed from Philadelphia.

BY COUNTRIES, IN BUSHELS.

	For past week.	Since Aug. 1, 1904.	Same time 1903.
Netherlands	....	.....	8,400
Totals	.....	.....	8,400

Wax, Lard, Tallow, Etc.

PARAFFINE WAX.—New orders and the movement of refined wax into consumption here for the week amount to a moderate volume. Manufacturers are still quoting parcels of refined on the basis of 6@6½c. for 120 degrees melting point. Crude remains steady at 5@5¼c., according to color and terms of sale. The exports from New York for the week ending May 11 amounted to 729,615 pounds, against 3,088,646 pounds the preceding week.

WHALEBONE.—The New Bedford market remains steady but quiet and unchanged. The approximate stock on May 8 was as follows: At New Bedford—Arctic, 50,000; Northwest, 3,000; South Sea, nil. Elsewhere—Arctic, 15,000; Northwest, nil; grand total, 68,000 pounds. Prices on spot parcels of prime here remain quiet and are nominally unchanged.

TALLOW.—The market is easy, with sales of 100 hhds. city at 4½c., with ⅛c. less now bid. Not much inquiry for tcs. at 4¾c., though a fair demand is reported for prime country at 4½c. and up, as to quality.

GREASES.—In sympathy with the decline in tallow, prices are easier, with only a moderate demand for export or for home consumption. Prices may be quoted nominal at 3¾c. for house and yellow and upward, as to quality.

OLEO STEARINE.—There have been sales of 50,000 lbs. in this section at 8⅛c., closing with 7¾c. bid and 8 to 8⅛c. asked.

The Price of Lard in Chicago.

May.	Cash.	July.	September.
6	7.15 @7.17½	7.30 @7.32½	7.47½@7.50
8	7.15 @7.17½	7.27½@7.35	7.45 @7.50
9	7.15 @7.17½	7.30 @7.35	7.47½@7.52½
10	7.17½@7.20	7.32½@7.35	7.50 @7.52½
11	7.20 @7.22½	7.35 @7.37½	7.55 @7.57½
12	7.20 @7.22½	7.32½@7.37½	7.52½@7.57½

Manufacture of Acetone Oil.

In the usual processes employed in the manufacture of acetone oil, potato oils are oxidized by means of a mixture of bichromate of potash and sulphuric acid until formation of the fatty acids and the obtaining of the corresponding calcium salts, which are afterward submitted to dry distillation; or else acetone oil is obtained by treatment of the scouring waters of wool. The dry residue contains the ammonium salts of the fatty acids, which are converted into corresponding calcium salts, the salts being submitted to dry distillation. A third process is by distillation of crude acetone and elimination of the fractions boiling above 700 deg. C., which are designated as acetone oil, but which are really a mixture of acetone. These processes are very expensive, and the raw material for the two latter is procured only in small quantities.

The new Karaseff process consists in obtaining the acetone oil by converting amylaceous and sacchariferous substances, by means of acid fermentation in presence of calcium carbonate, into calcium salts, which are then submitted to dry distillation.

As the raw material consists of products found everywhere in large quantities and obtainable at a low price, the final product is much less costly than that obtained by the processes mentioned at the outset.

For conducting this process either amylaceous products, such as potatoes, wheat, rye and maize, or sugar producing products, such as beets or the residues of the manufacture of sugar and molasses, and in general all products from which acetylic alcohol can be derived.

One of these products is submitted to acid fermentation in presence of calcium carbonate (chalk). On fermentation, volatile acids of the fatty series are formed, principally acetic, propionic and butyric, as also a small quantity of other acids of the same series. With calcium carbonate these acids yield calcium salts. The acetone oil is obtained in the ordinary way by dry distillation of the calcium salts drawn from the acids of the fatty series.

The product designed for acid fermentation is prepared in the following manner. Potatoes are boiled with steam in ordinary vessels; molasses and the flour of cereals are treated with water, at 100 deg. C. for half an hour. The preparation of the raw material designed for the acid fermentation is exactly like that in use for the preparation of wort. Its ulterior treatment takes place in a special vat of the same construction as those employed for wort. Pulverized calcium carbonate is introduced into this vat in the proportion of 7.5 kilograms per 20 kil. of starch, or 20 kil. of sugar.

It is necessary, of course, to determine exactly, according to the ordinary methods, the quantities of starch or sugar contained in the raw material. When this has been done the mixture is shaken carefully, and its temperature brought down to 40 deg. C., after which the ferments designed for exciting the acid fermentation are introduced. They are protected against the invasion of the bacteria by usual methods.

If for a fermenting product molasses not containing nitric combinations is employed there are mixed with it 375 grams of bone-black and 4 kilograms of salammoniac per 2,000 kil. of sugar contained in the molasses.

During the whole period of fermentation the temperature is kept at between 30 and 40 deg. C., and the mixture is worked up every two hours. If in consequence of the energetic action of the bacteria the temperature should exceed 40 deg. C., it is not necessary to make use of refrigeration. The fermentation reaches its term in six or eight days, according to the care given to the treatment of the material.

The fermented liquid is afterward evaporated in open boilers until complete desiccation, but without the temperature exceeding 150 deg., in order to avoid a decomposition of the calcium salts derived from the fatty acids. The dry residue thus procured, containing about 90 per cent. of calcium salts and a slight quantity of cellulose and nitric combinations, is then submitted to dry distillation in suitable apparatus furnished with agitators.

The product of distillation consists of two layers, a lower aqueous layer, and an upper layer representing a mixture composed principally of acetone oil, with slight quantities of animal oil and products of distillation of the cellulose. The upper layer is separated and submitted to a simple distillation with an acid, in order to obtain acetone oil in a state more or less pure. The quantity of acid necessary for the purpose is determined by the estimation of the impure acetone oil obtained. In the distillation the fractions not volatilizing below 200 deg. C. are alone taken. The bacteria designed for occasioning the acid fermentation are secured in the following way:—Hot water, 50 or 60 deg. C., is poured on ordinary hay and after stirring for fifteen minutes is drawn off. The liquid remaining in the hay is extracted by pressure and mixed with the first. The infusion thus procured is filtered through a coarse linen cloth, boiled for ten or fifteen minutes and left at rest at a temperature of 40 deg., the openig

of the vessel being closed with hydroscopic wadding. In two days germs thus prepared are ready to be employed in the fermentation.—La Revue de Chimie Industrielle.

TRADE ITEMS.

James W. Byrnes is making an extended business trip through the West for Rogers & Pyatt.

James G. Shaw, of Thurston & Braidich, of this city, is serving as a member of the Kings County Grand Jury for May.

The Tamboril Mining Co. has been incorporated at New York to mine and market amber, fossil, resin, etc. Capital $40,000. Incorporators: Fred Kollmer, Fred W. Koenigsamen, Brooklyn; Bellier De Launay, New York city.

The anouncement was received on Saturday of the death that morning of Henry Merz, of the Heller & Merz Co., of this city, at his home in Newark, N. J. The Reporter will publish a complete sketch of Mr. Merz, with a photograph, in next week's issue.

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NAVAL STORES.

NOTE.—Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures. Complete prices current will be found on page 31.

Saturday Noon, May 13, 1905.

SPIRITS OF TURPENTINE.—Prices underwent a sharp advance, showing a net gain for the week of 4½c., in response to higher advices from the South, noting an advance in prices at Savannah for the week of 5¼c. to 60¾c. bid, with the tendency upward. The rise at the latter point has been attributed to an active demand, and speculative manipulations as well as to the continued heavy shipments which materially reduced the stock. Trade in the local market during the week has been fairly active, but business has been principally confined to small jobbing lots at prices ranging from 60½c. up to 65c. for supplies in machine bbls., and ½c. less for oil bbls., in yard. Sales by first hands included several 100 bbl. lots, amounting to 600 bbls. and upward of machines at 60@64c. and oil bbls. at ½c. less, in yard. The sharp rise in prices came rather unexpectedly and dealers here are at sea regarding the future situation, owing to the probable outcome of large competing combines in the South. Prices here closed firm for machines at 64½c., in yard. We hear of no additional sales of futures in Savannah, but bids at 55c. for May and August options is now the accepted basis for sales. The London market for spirits of turpentine also shows a sharp advance to 47s. 6d., a gain for the week of 2s. 9d.

ROSIN.—The feature in this department has been the sharp advance in prices of the low grades and pales, which came as a surprise to the trade. Prices for supplies in yard show an advance for the week of 10@45c. on all grades, except for grades K and M, which remained unchanged. The soaring of prices has been influenced by like advances in the South in response to a steady demand and speculative manipulations at Savannah, as well as a scarcity of all grades here and in the South. Trade here has been restricted by limited offerings and scant supplies and sales by first hands during the week embraced about 2,000 bbls., common and good strained, in yard, which sold at following prices:—500 bbls. at $3.27½, 200 bbls. at $3.30, 200 bbls. at $3.35, 300 bbls at $3.40, 200 bbls. at $3.47½ and 100 bbls. at $3.50. Grades up to I are very scarce and difficult to purchase. It is believed that prices will still go higher. Pale grades are quoted entirely nominal. The Savannah market advanced from $3.05 to $3.20 on common rosin. The spot prices of the common grades are the highest in many years since the years 1872 to 1873, when the price in New York touched $4.75, with sales at that figure. Prices on the various grades advanced as follows:—27½c. to $3.50 on common and good strained, in yard; 32½c. to $3.55 on D, 40c. to $3.80 on E, 40c. to $3.90 on F, 45c. to $4 on G, 45c. to $4.10 on H, 20c. to $4.15 on I, 10c. to $4.80 on N, 15c. to $4.90 on W. G. and 15c. to $5 on W. W. A fair jobbing business during the week has been done.

TAR AND PITCH.—Prices of tar are very firm and quotably higher, and in a few instances several lots of 25 oil bbls., gauging on an average of 46 gallons, were sold at about $5.40@5.45. Most of the dealers and second hands are now naming from $5.60 to $5.75 for oil bbls. of 50 gallons, in yard, respectively. We hear of second hand sales at prices varying from $5.65@5.70 for 50 gallon oil bbls., in yard. Stocks are moderate and well held by strong interests, who are holding off for higher prices. There has been a better inquiry for pitch, but business has been slow and only small second hand lots, in yard, sold at $2.70@2.75. First are firmer and quoting higher prices at $2.65@2.70, in yard, owing to the sharp advance in rosins.

Following are the approximate receipts and deliveries at this point during the past week:—

NEW YORK STATISTICS.

	Spirits. bbls.	Rosin. bbls.	Tar. bbls.
Receipts	2,507	8,313	818
Deliveries	2,714	8,043	807
Stock, May 13	568	8,474	1,658

STOCKS IN YARDS.

	Spirits. bbls.	Rosin. bbls.	Tar. bbls.
New York, May 13	568	8,474	1,658
Wilmington, May 12	204	31,338	2,938
Savannah, May 12	4,516	15,486	....

Charleston, S. C., May 12, 1905.

Turpentine and rosin, nothing doing.

New Orleans, La., May 12, 1905.

Receipts—Rosin, 336 bbls.; turpentine, 163.

Savannah, Ga., May 12, 1905.

Turpentine firm, 60c.; receipts, 449; sales, 322; shipments, 898. Rosin firm; receipts, 2,493; sales, 870; shipments, 2,757. Quote:—A, B, C, $3.20; D, $3.25; E, $3.35; F, $3.40; G, $3.45; H, $3.75; I, $3.90; K, $4; M, $4.05; N, $4.10; W. G., $4.20; W. W., $4.40.

Wilmington, N. C., May 12, 1905.

Spirits turpentine firm, 60c.; receipts, 75 cks. Rosin firm, $3; receipts, 167. Tar firm, $1.70; receipts, 34. Crude turpentine firm, $2.50, $4.25 and $4.75; receipts, 100.

Liverpool, May 12, 1905.

Turpentine—Spirits strong, 47s. 3d. Rosin—Common strong, 8s.

London, May 12, 1905.

Rosin—American strained, 9s. 1½d.; fine, 12s. 3d. Turpentine—Spirits, 47s. 6d.

The following are the figures of naval stores as posted at the Board of Trade, Savannah:—

	Spirits.	Rosin.
Stock, April 1	5,400	25,335
Receipts May 10	484	964
Receipts previously	16,018	33,316
Total	21,902	59,615
Exports May 10	210	522
Exports previously	16,902	43,165
Total	17,112	43,687
Stock May 10	4,790	15,928
Stock previously	5,471	30,260

Parties desiring to be brought in contact with concerns who offer bargains in machinery are respectfully referred to page 27 of this issue.

If you desire to be brought in contact with concerns who offer bargains which enter into the manufacture of chemicals, drugs, paints, dyestuffs, fertilizers, naval stores, varnish, white lead, cotton oil, linseed oil, lubricating oil, etc., we would respectfully refer you to the Machinery Department of this publication, which you will find on page 23. Any special information that may be desired will be gladly furnished upon application, for we are in a position to place prospective purchasers in direct communication with the manufacturers of machinery of all kinds.

WANTS.

SPECIALS OR NOTICES in this column are at the rate of Two Dollars for each insertion of eight lines or less. All over eight lines Twenty-five cents per line of about six words. The full amount in cash must accompany all orders.

WANTED

Experienced young man understanding the manufacture of fatty and essential oils to take charge of this department; state experience, salary expected, etc. Address "DEPARTMENT," care of this paper.

POSITION WANTED

Young man (35), fifteen years' experience in oil business, thoroughly familiar and capable of taking charge or representing refinery among dealers. Address Box No. 124, care of this paper.

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A practical paint maker and color grinder; one who is competent and a sober man and who is willing to make himself valuable, and must be able to match colors; state all particulars and salary wanted. Address A. F. L., care of this paper.

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By one of the leading aniline houses, two competent salesmen; only first-class men with practical experience and absolute reliability need apply. Write at once, giving full particulars, C. C. C., care of this paper.

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Must have a thorough knowledge of fine colors and be acquainted with the trade. Address, giving references and particulars, stating salary expected, "CHICAGO," care of this paper.

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St. Julien Ravenel, of this city, who has been abroad several months for his health, arrived home on Wednesday last very much benefited by his trip.

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Machinery Department.

The advertisements which appear in this department are those of Manufacturers, and they all will send catalogue and full information upon application. It is requested that all inquirers mention the fact that the name was taken from the MACHINERY DEPARTMENT of this publication. If any of our readers are contemplating the purchase of machinery we will be pleased to place them in direct communication with the manufacturers.

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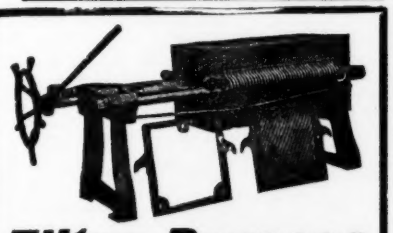

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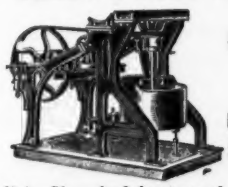

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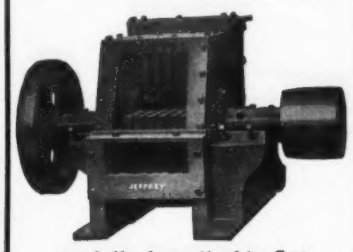

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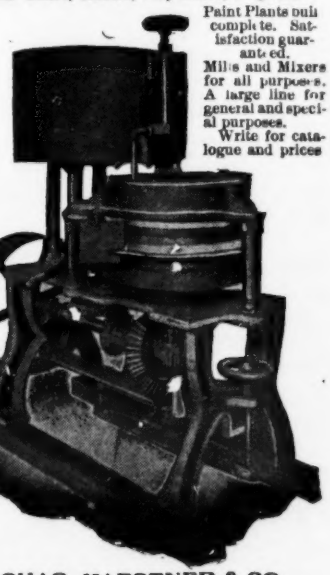

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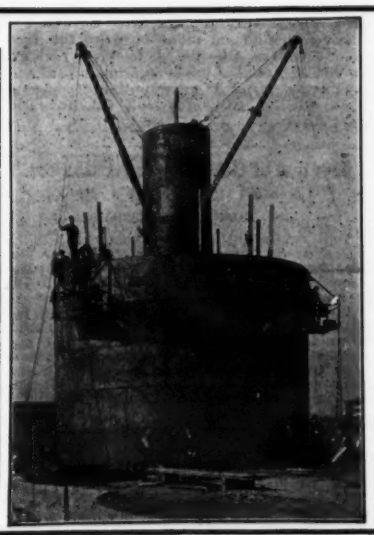

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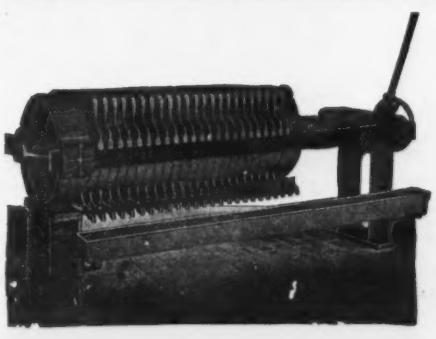

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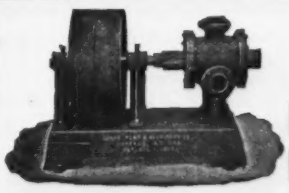

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Patents Granted.

Under this heading we give a resume of the patents relating to the various trades represented by the Oil, Paint and Drug Reporter, issued by the United States Patent Office. A copy of the specifications of any of these patents may be obtained by addressing Commissioner of Patents, Washington, D. C. When ordering specifications it will be necessary to give the number of the patent.

Issued May 2, 1905.

788,512.—SULFUR-BURNER. Henry Blumenberg, Jr., Daggett, Cal. Filed July 8, 1904.

In a generator the combination of a flat horizontal floor, an arched top, an air-supply pipe, a normal discharge-pipe, an auxiliary relief discharge-pipe provided with a valve and leading to the exterior atmosphere, a charging-aperture, a quick-opening door for the same, and a cleaning-aperture in one end of said generator, provided with a door.

788,527.—NON-REFILLABLE BOTTLE. Homer A. Everest, Mattapoisett, Mass. Filed Nov. 26, 1904.

The combination of a neck provided with a valve-seat in the length thereof, a valve operating upon said seat, and a guard co-operating with said valve and having a spiral passage leading from the upper end thereof to a point adjacent its lower end, the walls of said passage being transversely fluted or ribbed throughout its length.

788,631.—MANUFACTURE OF CHLORATES AND PERCHLORATES. Marcel Couleru, Geneva, Switzerland. Filed Nov. 12, 1904.

The method of simultaneously producing chlorates and acid peroxid which consists in electrolyzing a chlorid solution, neutralizing the formed alkali by the addition of chlorid of lead and transforming the hydroxid of lead into peroxid of lead.

788,639.—NON-REFILLABLE BOTTLE. Moritz Forst and Jacob Armband, New York, N. Y. Filed Oct. 20, 1904.

A cylindrical plug having a bore, a reduced lower section, a conical tip, a slotted flange, a series of lateral perforations entering the bore and a grooved head engaging the bottle neck, combined with a hollow conical valve adapted to engage the tip.

788,644.—NON-REFILLABLE BOTTLE. John G. Hayes, Argenta, Ark. Filed July 9, 1904.

A bottle having an internal marginal ledge provided in its neck, a tubular casing disposed in the neck and having an outturned flange resting upon the ledge, a valve seat formed in the upper end of the casing, a valve resting upon the seat and provided with an upwardly projecting stem, a cap disposed above the valve and provided with a depending socket adapted to receive the valve stem, and a shield arranged within the neck of the bottle and provided with a marginal depending flange designed to rest at its lower edge upon said cap.

788,701.—OIL-WELL APPARATUS. Waldo T. Bradstreet, Montpelier, Ind. Filed Sept. 26, 1904.

A device comprising a beam having means at one end thereof to clamp a drive-pipe or well-casing, cross-sills under the beam, inclined uprights secured to the beam, laterally inclined braces secured to said inclined uprights and to one of the cross-sills, and inclined bars secured to the beam and to the upper ends of the said supports, said bars and uprights having bearings in their upper ends and a direction pulley for the operating cable of a polish rod having a shaft journaled in the said bearing.

788,738.—OIL WELL TUBE CLAMP. Warren M. Thomas, North English, Iowa. Filed Sept. 27, 1904.

In a pipe-jack, reversely disposed gripping jaws formed with outwardly extending spaced ears having transverse apertures, radius bars pivotally united at one end upon opposite sides of said jaws and provided with a plurality of spaced apertures for adjustable connection to said jaw members by bolts passing through said bar perforations and the apertures in said ears, links connected to said radius bars at their united ends and an operating lever connected to said links.

788,780.—PROCESS OF MAKING PERBORATE. Otto Liebknecht, Frankfort-on-the-Main, Germany. Filed Sept. 2, 1904.

The process consists of causing molecular proportions of an alkali peroxid to react in the presence of water on boracic acid and an equivalent proportion of an acid that yields a readily soluble salt, cooling the mixture and separating the precipitated perborate from the liquor.

788,857.—ADHESIVE AND METHOD OF MAKING SAME. Gaston A. Thube and Louis Preaubert, Nantes, France. Filed June 22, 1903.

The process consists in dissolving casein in water in presence of an alkali, maintaining the temperature between 40 deg. and 50 deg. centigrade, mixing drying oil therewith to form an emulsion, and incorporating a hydrocarbon compound.

788,862.—PROCESS OF MAKING COPPER SULFATE. Arthur L. Walker, New York, N. Y. Filed April 14, 1904.

The process of producing sulfate of copper economically, continuously, rapidly, with the complete combination of the elements employed and in a form ready for crystallization, by the alternate immersion of shot-copper in, and its withdrawal from, a receptacle into which is continuously fed a solution of sulfuric acid and from which the concentrated solution of sulfate of copper is continuously withdrawn.

788,904.—MANUFACTURE OF BRUSHES. William Herbert, Jr., Boston, Mass. Filed Nov. 17, 1904.

A brush comprising a bunch of bristles, a metallic brush ferrule embracing the base of the bristles and having its upper edge turned outwardly and downwardly, and a handle having a ferrule the lower edge of which is turned inwardly and upwardly to fit the bent flange of the brush-ferrule, the handle being secured to said ferule and having its lower surface bearing on the top of the brush ferrule to hold the said flanged ferrules interlocked.

789,023.—NON-REFILLABLE BOTTLE. Francis B. Hefferman, Springfield, Mo. Filed Jan. 23, 1905.

The combination with a bottle-neck of a plug or stopper, comprising a lower section frictionally held within the bottle neck, said lower section having a central bore, tapering at its lower end, cylindrical in its upper portion and having one or more grooves in the wall of said cylindrical portion, a conical valve within said bore, and an upper section rigidly secured within the bottle neck, said upper section having a central port in its upper portion, and having a cavity in its lower portion wider than said port and a guard or stop secured to said upper section within the cavity and arranged below and in line with said port.

789,074.—PROCESS OF MAKING POTASSIUM SALTS. Aurelius J. Swayze, Danville, N. J. Filed July 5, 1904.

The process consists in mixing in a crushed state potash feldspar, gypsum and a reducing agent, fusing the same and collecting the volatilized potassium products in water.

789,096.—AZO DYE. Paul Julius and Ernst Fussenegger, Ludwigshafen-on-the-Rhine, Germany. Filed Feb. 18, 1905.

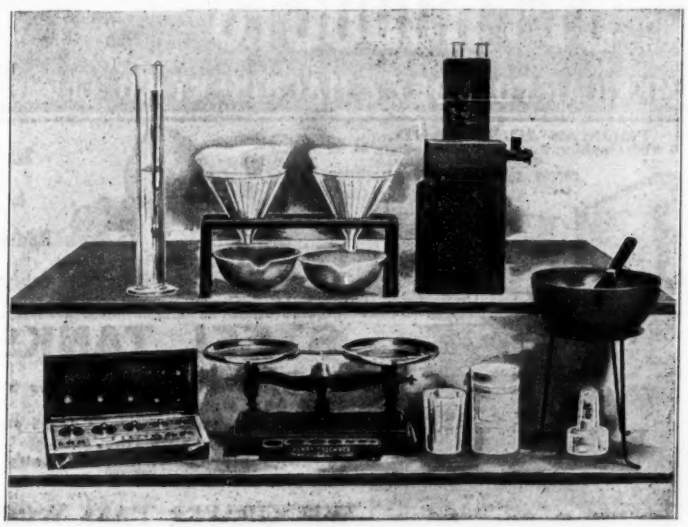
The azo coloring matter which can be obtained by combining diazotized para-chloranilin with 2-naphthol 3.6-disulfo-acid, which coloring matter consists of a brown-red powder easily soluble in hot water, and which in the form of its barium salt is almost insoluble in water, and which upon reduction with tin and hydrochloric acid yields para-chlor-analin and amido-naphthol disulfo-acid.

789,127.—PROCESS OF MAKING LUMP STARCH. Edward Gudeman, Chicago, Ill. Filed March 16, 1905.

The method consists in simultaneously stirring and heating the damp batch of starch granules or powder at a temperature proper to effect incipient gelatinization of the starch particles in situ, compacting the hot charge into the usual molds and after the charge has set to form a hard cake, breaking the cake into lumps, upon removal and slowly drying the lumps under kiln heat to remove superfluous moisture.

Testing Cottonseed Oil.

With the expansion of the cottonseed oil industry, the importance to the mill owner of the uniformity of his products becomes more and more apparent and those mills who have attained a high degree of excellence and are able to guarantee a uniform grade always secure preference in the market for their products and generally a little better price than the average. To accomplish these results accuracy in all details of manufacture is necessary and this cannot be accomplished by the old "rule of thumb" methods. Every mill should have an apparatus for testing crude cottonseed oil to determine its quality and this should be frequently employed by the superintendent that he may know just "where he is at," and he will then be in a position to guarante the uniform quality of his product and determine if it is up to the highest standard. The Allbright-Nell Co., Chicago, Ill., manufacture an apparatus for testing crude cottonseed oil which answers every requirement and is one that should be in constant use in every cottonseed oil mill of the South. An illustration of this apparatus is presented herewith. The manufacturers also include tintometer glasses to determine the standard and furnish directions for refining crude oil. This firm also furnish outfits for testing cottonseed meal or cake for free oil. Readers interested in this matter, and this includes every manager and superintendent of a cotton oil mill, should send to the Allbright-Nell Co. for full particulars.



Review of Cottonseed Oil Market.

October 1, 1904, to May 1, 1905.

BY JOHN S. ASPEGREN.

The crude oil season opened up with sales at 22c. for October-November deliveries. Refined oil for November, December, January in New York at the same time was selling around 30c.

Soap makers out West and also in the East, and a few foreign consumers who were bare of supplies on account of last season's high prices, showed some anxiety to lay in stocks of a moderate volume, and on their buying the crude oil market advanced from 22@23c. for nearby deliveries, and to 23½@24c. for January, February, March. Refined oil in New York for December and January followed suit and sold up to 31c. At this figure, however, considerable oil came out for sale. The size of the crop became more and more a known certainty, and those producers who had previously kept shy of making contracts started selling. Among these sellers were the two foremost refiners in the country who took orders right and left at any reasonable price. That such selling on a large scale should affect prices was only natural, and the market declined in leaps of from ¼c. to ¾c. per gallon, until crude oil reached 20c. and refined oil 27½c. in New York. On the decline considerable buying of crude oil by refiners, especially on orders from soap makers in this country, was noted; the export buying was comparatively small.

After this decline of about 3c. per gallon there seemed to be a halt. Crude oil mills had in the meantime sold their accumulations, and they had nothing further to offer. The refiners had sold freely and were satisfied with their sales. The standing bid for crude by the refiners for some time afterward was 20c., and quite a few orders for refined accumulated in New York around 27½c. The production, however, was going on all the time and while oil was being shipped out on orders it soon became evident that the production was away ahead of the demand. Refiners here and there began to get acceptances at 20c. for crude, and then one after the other they reduced their limits. When the crude-oil mills realized this, they suddenly became scared and started selling in a heap. Prices broke with a rush, and the decline did not stop until crude reached 17c. On this decline an enormous business took place in New York in refined oil. Europe bought on a scale such as has never been known before, and orders for thousand and five thousand barrel lots were filled daily.

With crude oil selling at 17c. and refined oil at 24½c., another halt in the decline materialized. The situation, however, was just about the same as a month previous when crude was selling at 20c. Seed receipts continued on the same enormous scale, and the crude-oil mills were working day and night. After a while acceptances for crude at 17c. began to come in and the selling pressure became too great. Prices for crude broke again from 17c. to 15½c. in the Southeast and Valley and to 14½c. in Texas. On this decline, however, it was noticed that both European and domestic consumers intended to stock up with oil at the then prevailing values, and for the first time since the beginning of the season the demand seemed to be ahead of the supply.

If seed receipts had continued on the same liberal scale as before, it would probably have been a question of whether the supply or the demand would get the upper hand. A great change, however, took place around the 1st of January in regard to seed receipts and the change was sudden. With crude oil going down in price continually the mills had to reduce their bidding prices for seed, and the seed prices came down to a figure at which the farmers and ginners refused point blank to sell it. They started throwing it in the ground for fertilizing purposes or to feed it to their cattle, finding that it would be to better advantage to use it in that way than to sell it at the prices which the crude-oil mills offered. In the meantime heavy liquidation of January refined oil carried the New York market down to the lowest point of the season; in fact, to the lowest price for refined oil during the past six years. Considerable quantities were sold around 22@22½c. for export, and some sold even as low as 21¾c.

The month of January was exceedingly dull in many respects, but was the most interesting in others. Seed receipts were especially interesting to watch. While these had during October, November and December been running all the way from 20 to 50 per cent ahead of those of the previous year, they practically fell off to almost nothing betweeen the 1st of January and Feb. 15. As a matter of fact, the seed receipts during the month of January were only 35 per cent. of what they were the year previous. The trade for some time showed some doubt as to what to make out of it, but after a while they woke up and realized the change that had taken place. Buyers got ready to purchase their supplies, and soon buying orders became too large for the offerings.

Some effort was made to hold prices down, and considerable short selling was done by speculators who hoped that the falling off in seed receipts would be only temporary. These efforts, however, proved futile. The buying orders were too numerous.

The crude oil market had been leading the pace on the decline, but from the 1st of January it was refined oil that took the lead on the advance, leaving crude oil to follow suit. On buying orders for prompt oil for export and for futures by clear-sighted speculators, the New York market advanced in spite of all efforts to stop the advance. Quite suddenly some of the largest concerns in the trade who had previously tried to hold prices down realized that it was no use trying this game any longer and decided to get aboard the band wagon. With these traders added a regular buying fever resulted. In one week no less than 150,000 barrels of oil were bought in the New York market. Prices shot up with a rush, and refined oil sold as high as 28½c. for prompt and March oil, and 29¼c. for September. The advance, however, was a little too sharp for the shrewd speculators who had started the buying at low prices. They figured out that with a heavy advance so early in the season, it would bring out large quantities of seed which would otherwise go into other channels, and they did not like the idea of being long in such a case. They were therefore, glad to take their profits and unload their holdings. Enormous quantities were liquidated during those days at good profits, and one of the principal concerns in the business had to hold the bag for the others. That the quantity transferred in this way would soon be too large and burdensome for any one single buyer, however important, soon became evident and after a while the buyer in question apparently decided that he had enough and resolved to quit. As soon as the remaining longs found out that the most important buyer had withdrawn, they suddenly became very anxious to get rid of their holdings, and a heavy slump ensued.

On the advance in oil, the price of seed in the South had been raised materially, and there is no doubt that some additional 300,000 tons of seed came out at these higher prices which quantity otherwise would not have been marketed. Since the market dropped again, a decrease in the seed receipts has been noted and arrivals have been only fair.

After the 1st of March the market has remained steady. At times there have been some occasions with heavy liquidation in New York, and at other times strength has been noticeable. Europe, however, has remained a steady and good buyer of refined oil, and large quantities have been taken for export, in fact, on a larger scale than any previous year, and there is no doubt now that the exports this season will be some 500,000 to 600,000 bbls. ahead of last season.

In the meantime there has been a steady change in the ownership of the oil in this country. The crude oil has gradually been passing out of the hands of the crude oil mills into the hands of refiners with strong financial backing, in other words, into hands of people who do not have to sell the oil until they feel that the price is right and who are able to carry the oil without any difficulty. The supply of oil in this country to-day is probably to the extent of 75 per cent. in such hands, and the movement in the same direction is still going on.

PRODUCTION DURING SEASON 1904-1905.

The production is no doubt the largest on record. Various estimates of same have been made. We estimate that the crush this year is or will be, when finished, about 3,000,000 bbls. crude, which makes about 2,750,000 bbls. refined oil. The production of refined oil, as above mentioned, together with the surplus carried over from last year of about 450,000 bbls. makes a grand total of 3,200,000 bbls. available for consumption during the present season.

CONSUMPTION.

While the production this season has been on an enormous scale, the fact must not be lost sight of that the consumption has also been correspondingly large. The compound lard makers have taken about as much as last year, the soap makers, it is estimated, will take about 150,000 bbls. more than last year, and the consumption of oil for baking, cooking and salad oil purposes will be nearly 100,000 bbls. ahead of last year's. Exports are expected to reach a total of 1,100,000 barrels against last year's 575,000 barrels. What the consumption has been so far this year can easily be seen when we compare the stocks in this country to-day with the available supply for the season.

Estimated stocks of crude oil held by independent crude-oil mills on May 1:—

	Bbls.
North Carolina	5,000
South Carolina	10,000
Georgia	7,500
Florida	1,000
Alabama	10,000
Louisiana	10,000
Mississippi	12,500
Arkansas	5,000
Tennessee	5,000
Texas and Indian Territory	35,000
Total	101,000

This quantity, when reduced to refined oil with 8 per cent. loss in refining, equals about 92,000 bbls.

Estimate of Total stocks of refined and crude oil in the country May 1, 1905:—

	Bbls.
Holdings of refined and crude oil and seed of the two largest and leading combination refiners and crude oil manufacturers represent about	550,000
Holdings of two Western refiners	250,000
Holdings of all the other refiners	300,000
Crude oil held by the independent crude-oil mills reduced to refined oil, as per above	92,000
Total refined oil	1,192,000
From this must be deducted direct export and domestic sales by refiners for forward deliveries	150,000
Sales on the New York Produce Exchange	150,000
Total	300,000
This leaves available for sale by refiners and mills a total of	892,000
To this must be added which represents unsold speculative portion of the 150,000 bbls. sold on the New York Produce Exchange, the remaining about 50,000 bbls. being sold to exporters on foreign orders.	100,000
There, therefore, remains a total of about	992,000

available for the remaining season from May 1 to Oct. 15.

It must, however, be taken into consideration that there is always a minimum, below which stocks in this country cannot go. All the large concerns must keep some stock of different grades of oil, and this minimum is estimated at about 250,000 bbls. In other words, with a stock in this country of 250,000 bbls., the market would be called bare of supplies. In an ordinary year this minimum reserve is, however, a great deal larger, and it is more than reasonable to suppose that this season at least 400,000 to 450,000 bbls. will be needed, especially to meet the early wants if the next cotton season should be late, which now seems likely to be the case. In other words, the quantity still to be sold during the next five months, or available for sale during that period, is

	Bbls.
only	992,000
Less reserve, as estimated above	400,000
Net total	592,000
There was available for consumption during the present season about, which represents this year's crush.	2,750,000
Besides this there was a surplus carried over from last year, of	450,000
Total	3,200,000
Stock left in the country on May 1 was about	1,200,000
It, therefore, appears that the consumption during the first seven months of the season has been about.	2,000,000

Considering that there is now available for sale during the remaining five months less than 600,000 bbls., not figuring in the

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200,000 bbls. already contracted for abroad, stocks certainly appear unusually light for this time of the year, especially considering the present heavy consumption at prevailing low prices.

Vegetable Fats and Waxes of Indo-China.

Dika Butter.—This is extracted from the fruit of the Irvingia Barterie, which contains from 60 to 65 per cent. of white fat having an agreeable taste and sweet odor; it grows rancid readily and then becomes yellow. It consists principally of palmitrine, laurine and myristine. Its proportion of free acids varies from 4 to 10 per cent,; it is readily saponifiable and may be used in the manufacture of soaps and candles. The analytical constants are:—

Fusing point	30 to 32° C.
Specific weight at 15° C.	0.820
Saponification figure	173
Iodine figure	30.9 to 31.3

Irvingia butter is extracted from the fruit of the Irvingia Malayana. The fruit of this tree contains from 60 to 65 per cent. of this butter. It is readily saponified and yields a pearly white soap, which is easily soluble in alcohol. The fusing point is from 37.5 to 38 deg. C., and its congelation point 35.5 to 36 deg.

Chinese Vegetable Tallow.—This tallow is produced by the fruit of the Sapium Sebiferum. It consists almost exclusively of palmitine and stearine, and from this fact is quite suitable for the manufacture of candles. In reality there are several different products sold under the name of Chinese tallow, having different analytical constants, although of the same origin. This is due to the various methods of extraction. Thus, a Chinese tallow fusing at 45.5 deg. C. and having a specific weight of 0.918 is met with, as well as another fusing at 35 deg. and having a density of 0.915.

Borneo Tallow.—This product generally reaches the market in the form of a cylindrical cake. It is employed as a constituent in certain lubricants and also in the manufacture of candles. It contains 95 per cent. of saponifiable matters, principally oleine and stearine.

Piney Tallow.—This tallow is of agreeable taste, of light, yellowish color, may be readily bleached, and is of consistency between that of stearine and that of wax. Its structure has the appearance of small crystalline grains. It consists of about 25 per cent. of oleine and 75 per cent. of stearine, contains on the average 2 per cent. of volatile acids and is soluble in alcohol. This fat is readily saponifiable and may be employed in the manufacture of candles. These are some of its analytical constants:—

Specific weight at 15° C.	0.915
Fusing point	40° C.
Congelation point	30.5° C.
Saponification figure	191.9
Fusing point of the fatty acids	57° C.
Congelation point of the fatty acids	55° C.

Japan Wax.—This wax, which is an important article of commerce, is generally forwarded to Europe in boxes of one picul

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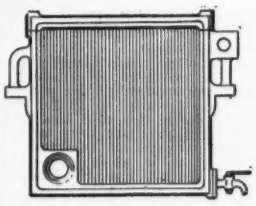

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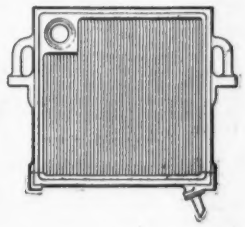

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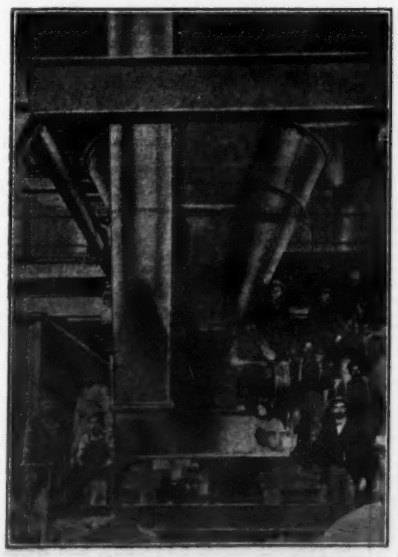

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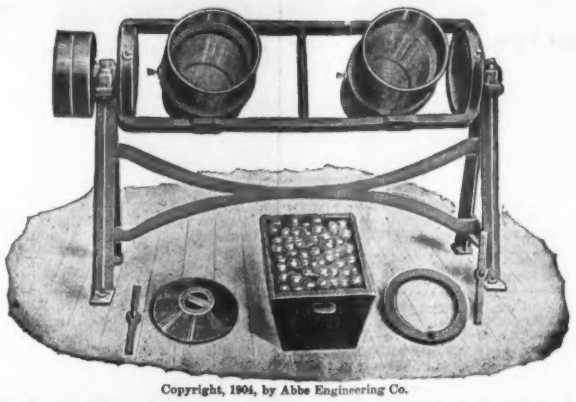

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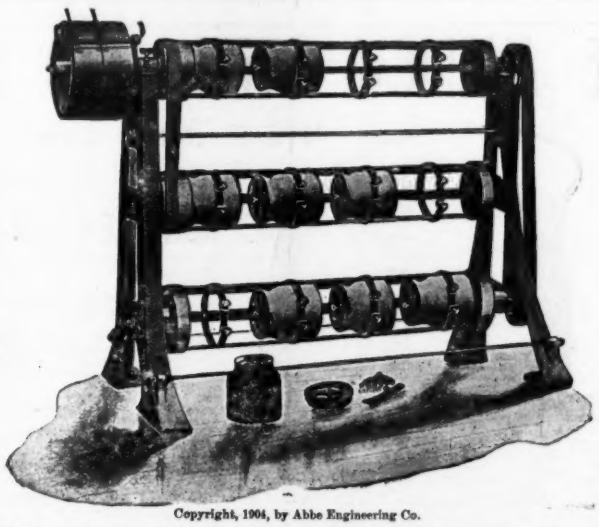

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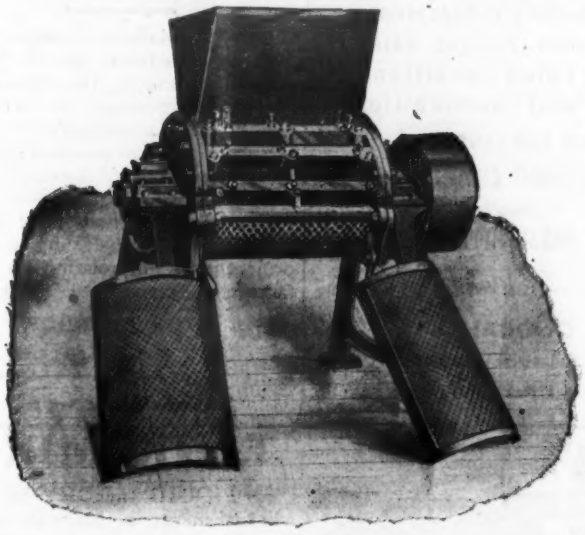

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(6.25 kilograms); it resembles beeswax a little, but its color is much clearer; it is hard and brittle and has a crystalline structure. Its fusing point is 53 to 54 deg.; it congeals at 40.5 to 41 deg., but when it has been melted once its fusing point is lowered to 42 deg. The specific weight of the crude wax is 1.006; that of the white wax varies between 0.970 and 0.980. It consists almost entirely of palmitine with small quantities of glycerides of volatile acids. Its principal uses are the manufacture of candles and the preparation of floor waxes, for which it is mingled with beeswax and ceresine.—Les Corps Industriels.

Reappraisements of Importations.

No. 4085.—Olive oil from Mariano Cuccia, Palermo, exported March 20, 1905; entered at New York. File No. 35,072. Findings of Lunt, G. A.: 900 ks., entered at 75, advanced to 84 lire per 100 kilos. Add casks.

No. 4086.—Olive oil from Gaetano Perriuse, Palermo, exported March 24, 1905; entered at New York. File No. 35,073. Findings of Lunt, G. A.: 3,607 ks., entered at 75, advanced to 92 lire per 100 kilos. Entered value is less 3 per cent., advanced value is net.

No. 4,120.—Olive Oil. From N. Manfredi, Naples, exported; entered at New York. File No. 35,109. Findings of McClelland, G. A.: 3.50 hectolitres; entered at 70, advanced to 106 lire per hectolitre.

No. 4,121.—Olive Oil. From Fratelli Gendiana, Palermo, exported March 18, 1905; entered at New York. File No. 35,116. Findings of McClelland, G. A.: 914 ks. second quality, for manufacturing purposes; entered at 70, advanced to 85 lire per 100 kilos.

No. 4,146.—Alcoholic Perfumery. From Eugene Rimmel, London, exported April 11, 1905; entered at New York. File No. 35,175. Findings of Lunt, G. A.: 9 dozen ambre ideal 565-1; entered at 20, advanced to 22.66 shillings per doz. Discount 10 per cent. Add case. Bottles included.

No. 4,147.—Chloride of Barium. From Chemische Fabrik Kalke, Cologne, exported March 31, 1905; entered at New York. File No. 35,139. Findings of Lunt, G. A.: 61,119 ks., entered at 7.15, advanced to 8.15 mks. per 100 ks. Add package.

No. 4,148.—Sponges. From G. N. Hardouvelas, Piraeus, exported Feb. 14, 1905; entered at New York. File No. 35,074. Findings of Lunt, G. A.: 20 okes; entered at 50, advanced to 60 drachmae per oke. 44 okes; entered at 10, advanced to 15 drachmae per oke. 50 okes; entered at 14, advanced to 20 drachmae per oke. 120 okes; entered at 33, advanced to 45 drachmae per oke. Add cases and bags.

The Valuation of Lubricants with Special Reference to Cylinder Oils.*

BY F. W. RICHARDSON AND H. NORMAN HANSON.

The question of the valuation of lubricants is one of the most complex which can be submitted to the consideration of the practical chemist, and we venture to think that hitherto no very clear solution of the problem has been given. The engineer suggests that someone of the various mechanical oil-testers would give better results than the chemical and physical methods employed in the laboratory; but it is not only our experience, but the opinion of others far more competent to judge, that no mechanical oil-tester yet devised meets all the conditions required; indeed, we do not hesitate to say that after one week's trial of a certain modern machine of this description not only we, "mere chemists," but also our engineer coadjutors were reluctantly compelled to admit that not a single set of reliable figures had been obtained. The bearings expanded unequally and the friction tests became valueless. Some engineers maintain that the only true method is that of ascertaining what an oil will do in the very machinery which it is intended to lubricate. We submit that this might prove very wasteful and even dangerous, as a succession of bad lubricants might produce serious wear and tear, and lead to pecuniary loss in various ways. We shall not attempt to do more than suggest certain methods which may prove helpful in certain cases; also, at the same time, pointing out the doubtful character of some processes now extensively used.

When we have to advise an engineering firm as to the comparative value of certain lubricants submitted to us we always make a fairly thorough chemical examination. We have found the lighter class of lubricants, such as those used for spindles, to consist mostly of hydrocarbons. Cylinder oils are frequently found to consist of about one part of lard, or neatsfoot or olive oil, with about five parts of a heavy hydrocarbon oil. Rarely we have found the saponifiable oil present in such a mixture to consist of rape or cotton oil. Solid or semi-solid lubricants have given us such substances as lime soap, potash soap, palm oil, ceresin wax, graphite and semi-solid hydrocarbons.

The examination of these complex mixtures with a view to a report as to their actual value for lubricating purposes is a matter of great difficulty. The chemist is generally asked to give the gravity and viscosity at certain temperatures and flash points (open and close test). We have never found the specific gravity to be of any practical value, although it may be of use in ascertaining the class to which an oil belongs. Possibly where pure hydrocarbon oils are under consideration the gravity may be of indirect value. For lubricants for light machinery the viscosity taken at the highest temperature the bearings are likely to attain is undoubtedly a very valuable and necessary factor, as also is the surface or film tension—what we might term the "wetting power" taken at the same temperature. The flash point is chiefly of service for insurance purposes, and as a rule tells one little or nothing as to the lubricating value of an oil.

Engineers' specifications for cylinder oils require the viscosities at 212° F., and in some cases at 250° F. From our examinations as well as those made by Messrs. H. W. Wells and Scott Taggart ("Cylinder Oil and Cylinder Lubrication," by H. W. Wells and Mr. Scott Taggart. Part I. Henry Wells Oil Co., Manchester) one fact appears very plain:—at from 500°—600° F. all cylinder oils, good, bad and indifferent, have a very similar viscosity, however much they may differ at 212° F. or 250° F. The curve goes down very rapidly as the temperature approaches these higher temperatures, and from the dip of the curve as the oil reaches 250° F. from 212° F., it is not possible to always say what the dip may be over 500° F. As the super-heat of steam is now often very high, it is quite obvious that the viscosity figures at 212° F. and 250° F. can be of very little real value.

The oil analyst often finds himself confronted with the problem of grading a number of samples submitted for his decisive opinion, and it may be found that to all ordinary tests the oils are very much alike; or perhaps there may be certain divergences which are difficult of interpretation. It is in such a case as this where the analyst's real difficulty arises.

We tried to get the film-tension before and after oxidation of the oil in shallow layers in a current of hot air; unfortunately no reliable method of determining the film tension of oils with even approximate accuracy seems to have been devised.

Several treatises on physics give methods of an apparently easy character for the purpose in question.

We have had no difficulty in measuring the diameter of a drop of the oil as required by the method of Sentis ("Physical Determinations," W. R. Kelsey (Edward Arnold), p. 71), using a microscope with micrometer eye-piece; but the measurements thus obtained do not allow of sufficient nicety to make the figures obtained of any real value.

The method of drops promised to be more reliable, but after much experimenting we decided that the difference between two results with the same oil when heated to 250° F., was such as to show that the process is of very doubtful value.

Proctor Hall's glass-frame process appeared to be capable of giving the results we desired, but the difficulty of establishing an equilibrium was found to be so troublesome that we had to discard the method for oils at high temperatures. No doubt for other fluids under ordinary conditions Mr. Hall's glass-frame may prove satisfactory.

Hall's modification ("Lubrication and Lubricants," by L. Archibold and R. M. Deeley, p. 46), of Wilhelmey's method (Archibold and Deeley, ib., page 47), with a thin rectangular glass, metal or mica plate in place of the glass frame took up many hours of our time, and proved to be very disappointing as the plate would separate from the oil in a very erratic and mostly in a quite unexpected manner. We regret that as far as our work with these two processes with oils is concerned we cannot endorse the statement that the results are "concordant" and "admit of extremely accurate work."

Supplied with the Metzger's Medical Centrifuge (supplied by Messrs. Gallenkamp) are small, almost capillary, bloodtubes about 2 in. long and graduated in 100°; it occurred to us that if we measured the diameter of the liquid retained by these tubes and noted the height to which an oil would ascend in a given time, using a delicate cathetometer we should be able to get an approximate idea of the film tension.

We devised a special copper vessel which enabled us to heat a shallow layer of the oil without fumes of any kind interfering with the conditions of the experiment. In this layer we immersed our tube, which had been previously cleaned with caustic alkali and acid.

Four cylinder oils were thus tested:—

	At 181° F. 1st. Expt.	At 250° F. 2d Expt.
	mm.	mm.	mm.
A	30-0	30-8	28-5
B	30-25	30-1	29-0
C	31-25	31-6	26-5
D	31-75	31-75	28-5

The weight of column is nR^2Hd. and the upward pull of surface tension is $2nRT$.

Therefore $n R^2Hd. = 2nRT.$

$$T = \frac{RHd.}{2}$$

The density of the oils may be assumed to be 0.89.

The radius of the inside of the tube was 0.32 mm.

In A, 1st expt., we get $T = \frac{0.32 \times 30.0 \times 0.89}{2} = 4.272$

In A, 2d expt., we get $T = \frac{0.38 \times 30.8 \times 0.89}{2} = 4.385$

In A, at 250° F., " $T = \frac{0.32 \times 28.5 \times 0.89}{2} = 4.058$

The method is more promising than any we have yet tried, but the results obtained with it scarcely enable one to grade oils possessed of much similarity.

In Goppelsroeder's test (compare his "Capillaranalyse") the filter-paper strips did not take up the oils with sufficient uniformity to make them other than useful as a means of distinguishing between one class of liquid and another.

Oil Oxidation and Viscosity.—Most oil-testers would pass a mixture, say, of 10 per cent. of a seed oil and 90 per cent. of a good heavy hydrocarbon oil, as satisfactory, inasmuch as the "gumming" test as ordinarily applied would indicate but little difference. We should remember that a cylinder oil exposed in very shallow layers, in films, in fact, to high pressure and therefore high temperature steam, and that a rational method of testing should take this fact into consideration. To this end we have constructed two spectti copper ovens in which shallow layers of oil can be submitted to the action of steady current of air at 212 deg. F. and 400 deg. F., respectively.

By means of a meter, we measure the air, heated by a coil, and the volume passed in four hours should be practically the same in each case.

We use water at the boiling temperature in one, and cylinder oil at 400 deg. F. in the other oven, to heat both the coils and layers of oil, which are contained in shall low tinned iron dishes, into which 10 c.c. of the oil have been pipetted, the weights being calculated.

The oven is made of stout copper brazed throughout, the outer dimensions are 10 in. by 10 in. by 7 in.

The oil jacket surrounds a chamber 5 in. by 7 in. by 1 in. in height.

The tin plate tray measures 4 in. by 6½ in. by ½ in. deep.

The inner chamber is surrounded by half-inch diameter copper tube in eight coils; the last coil enters the chamber at the back at one corner, and the exit is at the opposite corner diagonally, and is con-

*A paper read at a recent meeting of the Yorkshire Section of the Society of Chemical Industry.

nected with a half inch copper exit tube joined to the meter, which is connected with a water pump.

A tube leads from the centre of the chamber to the air, and is fitted with a thermometer and asbestos joint.

After introducing the tray containing 10 grms. of the oil, the entrance to the oven is covered with an asbestos sheet upon which, by means of two projecting screws (only one screw is shown in the diagram) a brass plate is firmly secured by means of fly nuts.

A broad gas burner allows of the temperature in the inner chamber being easily raised to 400 deg. F., and we find no difficulty in maintaining a steady current of air at this degree.

The viscosities of the oils are determined before and after oxidation by means of a simple apparatus we now describe. A 5 c.c. pipette graduated in 1-10ths is secured in a Liebig's condenser by means of corks, with a glass side tube connecting the vessel with a supply of water kept rapidly boiling. The viscometer is tested from time to time with water and a standard olive oil. We make three tests to secure an average result and find the viscosimeters obtained to agree within 1-5th of a second. The results are simply comparative.

We have not attempted to calculate the absolute viscosities, for the simple reason that the readings in 1-5th of a second are all that we require. All vegetable and animal oils increase in viscosity when heated in air or steam.

Linseed oil is not used in the compounding of lubricants but we submitted it to our process because it shows in more striking manner the identity of the action of hot air and steam.

In Table I. will be found some of the results which we have obtained at a temperature of 400 deg. F.

These data establish the fact that superheated steam acting upon a "drying" oil, produces changes of a similar character to those resulting from the action of hot air; but the action is much less rapid, as one might naturally expect. The conclusion deducible from this fact is that the change produced by oxidizing an oil in a hot air current is a test as to its "gumming" properties in actual use as a lubricant. In superheated steam as well as in hot air at the same temperature saponifiable oils increase in viscosity, refraction and melting point of the fatty acids, while the iodine number decreases considerably.

In our view these changes in general are due largely to polymerisation and only in a secondary degree to oxidation, hence the increase of viscosity of the refractive index and the melting point of the fatty acids.

We suggest that the progressive decrease of the iodine number and part of the increase of the melting point may be due to the conversion of oleic constituents into dihydroxystearic acid or similar oxidation products. Whatever may be the exact chemical changes oils undergo on oxidation we know that physically the change is always in the direction of increased viscosity and the production of hard gummy substances insoluble in ether.

Two lubricants which have given very similar results in all the ordinary tests may not only prove very different to our oxidation test, but also in actual use. Hydrocarbon oils frequently contain small amounts of substances which become resinous in character when heated in a steady current of air at 400 deg. F., yet the presence of these bodies is not revealed by any of the ordinary tests. We have used steam at 400 deg. F., but we should remember that the super-heat in cylinders often gives temperatures over 600 deg. F., and we are safe in assuming that with such steam the oxidation of the filmy layers of the lubricant will be very much greater.

As the transit of the oil in a cylinder is comparatively brief, it might appear at first sight that there would be no time for polymerisation to take place; but we must remember two salient facts:—

(1) The oil is made to produce a rapid succession of film surfaces.

(2) The steam is not only very hot but is under high pressure.

We have been surprised at the great changes which take place even in the best olive oil when film-surfaces of it have been exposed to hot air or steam for only a few seconds.

Olive and cotton oils undergo similar changes to linseed oil but in a lesser degree, the cotton naturally suffering the greater change of the two in every particular, indeed the oil soon becomes solid and varnish-like and only partly soluble in ether.

Before we adopted the temperature of 400 deg. F. we made a large numbe of tests at 210 deg. F., allowing the current of air to pass for six hours. The chief interest in these results lies in the close connection betwen the viscometric and refractometric changes. (See Table II.)

If we exclude sperm oil it will be seen that a close ratio exists between the increase of viscosity and the increase of refractive power. We would therefore suggest that a good method of testing the value of a lubricating oil would be to expose it in very shallow layers; much shallower than those we have used, to a stream of air at 210 deg. F., for twelve hours, and then observe the increase of refractive index, which safely could be taken as a measure of the polymerisation.

We have tried to devise a process which would enable us to predict the results of using cylinder oils as far as their tendency to form non-lubricating bodies is concerned. To all the ordinary tests the defective cylinder oil included in the above table seemed excellent; but when we found that shallow layed oxidation at 210 deg. F. for six hours had increased the viscosity by nearly 10 per cent., we inferred that it was unsuitable for the purpose required, and we were gratified to learn that this very oil had given very unsatisfactory results; indeed in this way and on several occasions, we have been able to grade oils in a manner which has fully met the approval of engineers who had made long tests in cylinder lubrication.

We are aware that a seeming difficulty may arise in regard to pure hydrocarbons which undergo but little apparent change on oxidation as compared with vegetable and animal oils; yet even with these very appreciable differences are shown, and when we know how very much more rapidly these changes take place in the cylinders—how viscosity increases and film tension decreases, we can readily understand how it is that even pure heavy hydrocarbon oils differ so much among themselves in actual use.

We append (see Table III.) some tabulated results from the analysis of several samples of lubricating oil, and suggest that without such data it would be difficult to formulate any very definite opinion as to the value of a lubricant.

TABLE I.

LINSEED OIL.

	Expt.	Air at 400° F. ¼ hour.	½ hour.	Steam at 400° F. 1 hour.	4 hours.
Condition after cooling to 60° F.	fluid.	semi-fluid.	semi-fluid.	fluid.	semi-fluid.
Viscosity 1-5th sec. at 210° F.	57	78	112	77½	154
Zeiss' butyro refractometer, degrees at 121° F.—					
Oil	66	70¼	73	..	..
Fatty acids	55	60	66	67½	82
Melting point of fatty acids ° C.	19½	22½	23¼	24.8	25 9
Iodine (Hubl) value of the oil	175	171	161	153	144

TABLE II.

FOUR SAMPLES OF OIL.

	A.	B.	C.	D.
Specific gravity at 210° F.	0.85032	0.85360	0.84904	0 84440
Saponifiable—				
Free fat acids	trace	trace	trace	trace
Neutral oil	22.42	12.10	12.89	25.18
Unsaponifiable (hydrocarbons)	77.58	87.90	87.11	74.82
	100.00	100.00	100.00	100.00
Viscosity at 250° F.	60	68	61	56
Flash point (close test) °F.	486	528	489	460
Oxidation test at 212° F. Per cent. increase in viscosity	0.87	0.57	3.85	3.54
Oxidation test at 400° F.— Per cent. increase in viscosity	24 6	20.8	34.6	62.3
The saponifiable fat acids—				
Melting point ° C.	33.5	36.5	36.0	35.5
Iodine number	71.5	63.8	68.6	66.2
Refractometer at 121° F.	39.5	38.5	39.0	35.5

D oil was reported as being unsatisfactory an we were told that our opinion was in harmony with the results obtained in actual use.

TABLE III.

VISCOSITIES AND REFRACTIONS OF OILS BEFORE AND AFTER OXIDATION, IN SHALLOW LAYERS AT 210° F. FOR SIX HOURS.

	Loss, per cent.	Gain, per cent.	A Viscosities before oxidation.	A after oxidation.	B Viscosities after oxidation.	Refractions at 19° C. Bliss B Butyroxefractometer C. unoxidized. A	Bliss B Butyroxefractometer D. oxidized.	D — C.	B D —X— A C X.969
Cotton oil	..	1.68	42.5	171.5	4.035	68 5	78.0	1.139	4.454
Arachis oil	..	1.97	41.5	89.5	2.156	68.0	73.0	1.074	2.244
Rape oil	..	2.02	50.5	106.5	2.109	71.0	75.0	1.056	2.158
Codliver oil	..	3.10	55.0	113.5	2.063	81 5	87.0	1.068	2.130
Maize oil	..	1 71	39.5	76.0	1.924	73.0	81.0	1.110	2.051
A defective olive oil	..	1.00	43.0	85.0	1.977	65.5	71.0	1.084	2.077
(X.) Lard oil	..	1.38	46 0	70.5	1.533	65 0	68.0	1.046	1.554
Seville olive oil	..	0.67	46.0	61.0	1.326	65.0	67.0	1.031	1.325
(XX.) Neatsfoot oil	..	..	50.5	63.5	1.260	61.5	64.5	1.050	1.230
Another lard oil	..	..	52.5	64.5	1.23	64.0	64.0	1.00	1.19
Hydrocarbon cylinder oil	0.5	..	200.0	207 5	0.99	..	..	..	..
Hydrocarbon cylinder oil	..	..	180.0	206.5	1.15	..	..	..	..
(X.) Lard oil (1)									
Hydrocarbon (4)									
(XX.) Neatsfoot (1)	..	..	141 5	155.5	1.13	..	..	..	..
Best Gallipoli oil 21.3 per cent. fat acids	..	0.79	43.0	47.5	1.105	63.0	64.0	1.016	1.088
Sperm oil	0.19	..	34.0	36.5	1.073	59.0	74.0	1.254	1.30
Excellent cylinder oil	..	..	158.0	159 0	1.006	..	..	..	..
Defective cylinder oil	..	0.25	184.0	201.0	1.092	..	..	..	..

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Receipts Relating to Fats, Oils, Etc

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BLEACHING OF LINSEED AND POPPY-SEED OILS.

This receipt is applicable to small quantities of oil. Agitate 2.5 kilograms of oil in a glass receiver with a solution of 50 grams of permanganate of potash in 1.25 liters of water. Leave at repose twenty-four hours in gentle heat and add 75 grams of pulverized sulphite of soda. After agitation, add 100 grams of chlorhydric acid Agitate again, and after decoloration, wash with water containing in suspension finely ground chalk, until the water has no longer an acid reaction. Filter on anhydrous sulphate of soda.

REAGENT FOR DIFFERENTIATING OLIVE OIL FROM SESAME OR GROUND NUT OIL.

Pour into a test tube 10 grams of the oil to be tested, mix in 7.50 grams of commercial nitric acid and shake frequently for ten minutes; then add 1 gram of quicksilver. The reactions are the following:—olive oil, coloration greenish yellow; sesame oil, coloration dark red; ground nut oil, coloration very light red.

PETROLEUM BRIQUETTES.

Mix by heating together an equal quantity of soda lye and fat. Add a quadruple quantity of crude petroleum. Heat the whole while stirring, but without reaching the boiling point. Then mould in the form of bricks.

PARAFFINE CANDLES.

Various commercial paraffines do not melt at the ordinary temperature. Those that liquefy at between 46 and 58 deg. C. cannot be run into candles without the addition of 15 to 20 per cent. of stearine Those which melt at a higher temperature do not require the addition of stearine in winter and only 1 or 2 per cent. in summer. Paraffine candles, as well as those of stearine, ought to be run into frames at a temperature near that of their point of solidification, and be rapidly cooled. They attain their highest degree of transparency when they solidify between 50 and 60 deg., the temperature of the frames being 70 deg.

BLEACHING OF PALM OIL.

This operation may be performed in cast iron boilers. Fill two-thirds of the capacity with crude palm oil previously melted and screened. Raise the temperature gradually to 110-120 deg. C. A thermometer suspended by a thread and plunged from time to time in the oil is sufficient for suitably regulating the heat. The oil is to be stirred smartly during the whole period. At 100 deg. C. the principal colorant is volatilized and condensed in great part on the free portion of the sides of the boiler. Thirty or forty minutes from the time the temperature reaches 100 deg. are sufficient for decoloring the oil.

PURIFICATION OF GUMS.

For purifying and clarifying gums, gelatines, etc., add to their solutions ammonium fluoride in the proportion of 1 per cent. The liqueous matter is precipitated, the solution becomes clear, has a greater adhesive power and dries more rapidly.

TEST OF WAX BY MEANS OF SODA.

Put 2 grams of wax in a test tube containing 6 or 7 cubic centimeters of carbonate of soda in solution (1 part of carbonate for 6 parts of water) and heat without shaking. I much froth is formed, stearic acid is probably present. Afterwards boil; if the liquid becomes milky, Japan wax or stearine is present. In the latter case the liquid remains milky, even after cooling, but preserves its fluidity; while with Japan wax, the mass becomes more or less pasty, and sometimes even congeals; the pure wax collects on the surface. If it contains resin, this will be deposited at the bottom of the tube in a flaky mass which can be weighed.

WHITE PAINT FOR METALS NOT AFFECTED BY HEAT.

Take finely powdered zinc-white and mix with a solution of soluble glass of the strength of 40 to 50 Be, until the mixture has the consistency of an ordinary paint, capable of being applied by the brush. Before use, the milk should be cleaned with chlorhydine acid, especially if the object is of zinc. When several layers are applied, an interval should be allowed after each to secure thorough drying.

SEPARATION OF MARGARINE FROM OLIVE OIL.

To augment the value of comestible olive oils having a high congelation point, M. Bertainchaud proposes to extract about ten per cent. of the margarine contained. The filtered oil is cooled at from 6 deg. to 8 deg. C., and turbined in apparatus having tinned sides and covered with a filtering tissue. The acidity of the oil is not increased, and the product obtained equals in value the bari oil, while being more economical. The residue retained by the turbine melts at 20 deg. C. and may be used for the manufacture of soap.

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One large, one small, nearly new. DELAWARE HARD FIBRE COMPANY, Wilmington, Delaware.

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PETROLEUM MARKET.

Saturday Noon, May 13, 1905.

The feature of the past week in the producing fields was the unexpected strike in the old Butler county field in the State of Pennsylvania. This well was earlier thought to be a failure as an oil well, but was drilled down to the fourth sand, when it developed into a veritable gusher of the old-fashioned sort. At last accounts the well was flowing at the rate of 60 bbls. per hour and had to be shut in owing to lack of tankage. This naturally has caused considerable excitement, such as has not been witnessed in the old Butler county field in years. From the other Northern producing regions the reports show some improvement in the results attending development operations, the proportion of good producers having been larger than for some time, although the percentage of dry holes has shown no improvement and the majority of the new wells have been small pumpers. There is still considerable complaint about the prices of the product, the producers fearing further reductions, notwithstanding that the pipe line report for April shows a decrease in production of the Northern fields of over 300,000 bbls., and a reduction in stocks of fully 500,000 bbls. The report is bullish, but it has not influenced prices. In Kansas and the territories the production has fallen off, but still continues largely in excess of the deliveries, about 300,000 bbls. having been added to the stock in tanks during the past month. The total stocks are now about 450,000 bbls. From Texas the reports show further increase in production at the Humble field. The total stocks of Texas oil now amount to 15,250,000 bbls. The production in the Humble field alone during April was about 2,000,000 bbls. Prices have weakened, and are now quoted at 26@28c. for Batson, 26c. for Saratoga, 30c. for Sour Lake, 34c. for Spindle Top, and 18c. for Humble oil.

Refined and Products.

The demand for refined for export has shown a considerable falling off during the past week, though this is attributed to the altered position of the tank fleet, there being no change in the situation abroad, where, although competition continues keen, the American oil continues in favor. The engagements during the past week have amounted to about 150,000 bbls., all for shipment in bulk, there being no demand for refined in barrels for export. The price for barreled oil has remained steady at 6.95c. for New York loading, and at 6.90c. for Philadelphia loading. The principal foreign markets are steady. The quotations by cable were:—Antwerp, 17½f.; Bremen, 6.35m.; London, 5⅛d., and Liverpool, 5⅝d. Freight rates are firm at 1s. 9d.@2s., hence to London, and 1s. 9d.@3s. to Continental ports, as to port and vessel. Home trade lots have been in good request and are unchanged on the basis of 9½c. for 150 deg. water white from tanks and 12½c. in barrels.

Cases for export have been in active request and sales of over 425,000 are reported. The price of plain tops has been steady at 9.65c. Freight rates are firm. Nominal rates for large vessels are:—For Amboy, 16@17c.; Calcutta, 10@11c.; Colombo, 20@21c.; Java, 17@18c.; Penang, 14@15c.; Hong Kong, 16@17c.; Rangoon, 20@21c.; Saigon, 17@18c.; Shanghai, 18½@19c.; Singapore, 14@15c.; Yokohama, 17@18c.

Crude for export has been in fair request and sales of over 25,000 bbls. are reported. Pennsylvania crude is quoted at 6.95c. in barrels. Cases for export have not been in request and no sales have been reported.

Crude naphtha has been steady at 12.40c. For export sales of about 5,000 bbls. have been reported.

Closing Quotations.

CRUDE.

National Trans. certificates...℔ lb.	1,29@1.30
Pennsylvania crude, bbls...℔ gal.	—@6.95
Pennsylvania crude, in bulk.....	—@4.05
Residuum, bbls. for export.....	6@ 6½

CRUDE AT THE WELLS.

The following are the prices paid by the pipe lines for crude as delivered from the wells:—

	1905.	1904.
Tiona ...℔ bbl.	$1.44	$1.77
Pennsylvania	1.29	1.62
New Castle	1.21	1.49
Cabell	1.04	...
Corning	.90	1.42
North Lima	.87	1.13
South Lima	.82	1.08
Indiana	.82	1.08
Somerset	.76	1.07
Kansas, 32 deg.	.57	1.13
Ragland	.50	.66
Canadian Oil:—		
Petrolia	1.27	2.12
Oil Springs, less pipeage	1.34	2.19

REFINED—FOR EXPORT.

Cargo lots, for export, bbls—℔ gal.	—@ 6.95
In bulk	—@ 4.05
Philadelphia loading, bbls	—@ 6.80
150° W. W., bbls	—@ 8.95
In bulk	—@ 6.05

REFINED IN CASES—110 FIRE TEST.

Two-five low screw cargo lots	9.65
5,000 to 10,000	9.80
1,000 to 5,000	9.85
700 to 1,000	9.95
400 to 700	10.05
300 to 400	10.15
200 to 300	10.25
100 to 200	11.15
Under 100	11.65

REFINED—JOBBING LOTS.

In barrels, pkgs., included.

120 fire test, S. W...℔ gal.	— @ 11½
130 fire test, S. W.	— @ 12
150 fire test, W. W.	— @ 12½
In bulk from tanks	— @ 9½
300 fire test	12½@ 13¼

NAPHTHA AND GASOLINE.

For Export.

Naphtha, cde., car lots 65@72 deg.	—@12.40
crude, cargo lots, 65@70 deg.	—@12.40
crude, 70 deg.	—@12.90

Jobbing Lots.

sweet, 62@63 deg.	—@12.00
70@72 deg.	—@14.00
74@76 deg.	—@15.00
"stove"	—@13.00
Gasoline, 86 deg.	—@17.00
88 deg.	—@19.00
90 deg.	—@22.00

Petroleum Statistics.

RUNS—PENNSYLVANIA OIL.

			Day.	Total Reported.
Friday,	May	5	88,069	351,374
Sat.-Sun.,	"	6 & 7	98,821	450,195
Monday,	"	8	54,614	504,809
Tuesday,	"	9	86,183	590,992
Wednesday,	"	10	73,421	664,413
Thursday,	"	11	....	.....

	1902.	1903.	1904.	1905.
Jan....	2,559,185	2,621,892	2,269,168	2,255,333
Feb....	2,199,982	2,286,710	2,227,403	2,122,868
March..	2,560,762	2,701,879	2,646,015	2,580,398
April...	2,635,929	2,626,408	2,622,226	2,329,287
May....	2,715,013	2,598,408	2,653,708	.....
June....	2,529,449	2,678,375	2,618,460	.....
July....	2,777,650	2,665,460	2,586,762	.....
Aug....	2,664,141	2,549,279	2,719,184	.....
Sept...	2,727,494	2,670,881	2,569,345	.....
Oct.....	2,791,533	2,583,319	2,483,721	.....
Nov....	2,532,007	2,281,533	2,460,459	.....
Dec....	2,609,283	2,485,604	2,560,897	.....
Year..	31,360,448	30,652,108	30,316,328	.....
Average	2,613,371	2,554,342	2,526,361	2,321,971

DELIVERIES—PENNSYLVANIA OIL.

			Day.	Total Reported.
Friday,	May	5	86,572	414,094
Sat.-Sun.,	"	6 & 7	199,386	613,230
Monday,	"	8	82,490	695,720
Tuesday,	"	9	67,210	762,930
Wednesday,	"	10	83,926	846,856
Thursday,	"	11	....	.....

	1902.	1903.	1904.	1905.
Jan....	3,013,150	2,885,789	2,481,933	2,475,028
Feb....	2,282,872	2,198,668	2,339,138	2,188,455
March..	2,613,412	2,792,821	2,122,964	2,663,164
April...	2,447,301	2,556,172	2,111,541	2,561,946
May....	3,410,053	2,735,796	2,545,904	.....
June....	2,708,493	2,670,252	2,164,674	.....
July....	2,740,665	2,679,278	2,401,417	.....
Aug....	2,911,251	2,696,969	2,455,686	.....
Sept....	2,792,104	2,663,434	2,620,014	.....
Oct.....	3,218,685	2,623,539	2,574,532	.....
Dec....	3,117,782	2,552,745	2,653,735	.....
Year..	34,154,461	31,584,623	29,033,847	.....
Average	2,846,205	2,632,052	2,452,821	2,472,148

CHARTERS—CRUDE EQUIVALENT.

			Day.	Total.	Av'ge.
Sat.-Sun.,	May	6 & 7..	147,143	446,984	63,855
Monday,	"	8.....	82,698	529,682	66,210
Tuesday,	"	9.....	87,302	616,984	68,554
Wednesday,	"	10.....	31,746	648,730	64,873
Thursday,	"	11.....	23,810	672,540	61,140
Friday,	"	12.....	39,683	712,223	59,352

	1902.	1903.	1904.	1905.
Jan....	2,875,610	1,162,883	1,629,644	1,762,737
Feb....	1,715,375	1,396,350	1,399,086	2,570,438
March..	2,696,879	1,526,424	1,853,900	2,306,645
April...	1,818,864	1,887,649	2,528,100	2,367,977
May....	1,796,904	1,521,348	1,921,000	.....
June....	2,303,174	1,824,211	1,706,779	.....
July....	2,090,021	2,467,233	2,089,840	.....
Aug....	2,221,100	2,267,480	2,069,413	.....
Sept....	1,946,905	1,918,602	1,692,182	.....
Oct.....	2,013,388	1,885,290	1,902,340	.....
Nov....	2,027,816	1,911,333	2,050,445	.....
Dec....	1,772,032	1,896,800	1,766,213	.....
Year..	25,228,128	21,756,817	22,608,941	.....
Average	2,106,844	1,814,610	1,884,078	2,252,426

CHARTERS FOR THE WEEK.

The total charters for refined, crude, naphtha, etc., in bulk, barrels and cases, during

THE CANFIELD OIL CO. General Office, CLEVELAND, O.

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35-40-50-60 Cold Test Cylinder Oils Naphthas, Gasolines, Abel and Water White Oils

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GAS OIL ASPHALTUM OIL FUEL OIL

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of High Viscosity and Low Cold Test. Large Stock.

Prompt Shipments from New York, Philadelphia, Boston, New Orleans Tampa, Fla., and Port Arthur, Texas

General Office: **Frick Building, Pittsburgh, Penna.**

the week ending May 12, and from Jan. 1, were as follows:—

	Week.	Year.	1904.
Refined, bbls. & blk.	152,700	3,877,000	3,290,800
Refined, cases	435,000	8,919,000	7,305,000
Crude, bbls. & blk.	26,800	395,600	527,000
Crude, cases	....	50,000	92,000
Naphtha, bbls.	700	181,200	69,400
Residuum, bbls.	....	368,400	116,000
Lubricating, bbls.	....	54,400	34,800
Total, bbls. cde. eq.	412,382	9,727,332	8,145,719

CLEARANCES FOR THE WEEK.

During the week ending May 12 and since Jan. 1, the clearances of petroleum, in gallons, from the port of New York, were as follows:—

	Week.	Year.	1904.
Refined	7,010,520	180,087,521	148,518,198
Crude	.....	621,744	461,589
Naphtha	195,900	5,071,323	3,752,618
Residuum	.....	3,294,915	1,816,561

EXPORT STATISTICS.

The following table shows the total exports from the port of New York and from the United States, reduced to crude equivalent, in gallons for the week ending May 12; also total shipments to date, with comparisons with 1904:—

From N. Y., week ending May 12	9,347,360
Total from N. Y. from Jan. 1, 1905	240,738,439
Same period last year	197,485,850
Increase	43,252,589
From U. S., week ending May 12	21,053,334
Total from U. S. since Jan. 1, 1905	442,906,297
Same period last year	362,795,097
Increase	80,111,200

TOTAL EXPORTS BY PORTS.

	1905.	1904.
New York	240,738,439	197,485,850
Philadelphia	173,287,906	148,737,968
Baltimore	14,173,327	12,767,564
Boston	151,357	280,116
San Francisco	14,555,268	3,523,599
Grand totals	442,906,297	362,795,097

Foreign Quotations.

REFINED.

	Antwerp. Francs.	Bremen. Marks.	London. Pence.	L'pool. Pence.
Monday	17½@—	6.35	—@ 5¼	—@ 5¾
Tuesday	17½@—	6.35	—@ 5⅛	—@ 5¾
Wednesday	17½@—	6.35	—@ 5⅛	—@ 5¾
Thursday	17½@—	6.35	—@ 5⅛	—@ 5¾
Friday	17½@—	6.35	—@ 5⅛	—@ 5¾
Saturday	17½@—	6.35	—@ 5⅛	—@ 5¾

PETROLEUM CHARTERS.

Following is a list of vessels chartered and loading or to load petroleum at New York, Philadelphia, Baltimore and Boston. Quantities are refined in barrels, unless stated otherwise:—

New York.

Week ended Feb. 3.
Br ship County of Kinross, Anjer, f o, Java, 15c. ..... cs 60,000

Week ended Feb. 10.
Br str Vermont, Shanghai, 21½c. ..... cs. 160,000
Br bk Howard D. Troop, Chefoo, 19½c. cs. 85,000

Week ended Feb. 17.
Br bk Vimeira, Sydney, 12c. ..... cs. 85,000
Nor str Falk, Newchwang, 23c. ..... cs. 60,000

Week ended Feb. 24.
Fr bk Montcalm, Shanghai, 17c. ..... cs. 70,000
Br str Ecclesia, Manila, 20c. ..... cs 150,000

Week ended March 3.
It shp Niobe, Sydney, 11c. ..... cs. 60,000
It shp Herat, Adelaida, 12c. ..... cs. 50,000

Week ended March 10.
Br str ——, Shanghai, 20c. ..... cs. 160,000
Fr shp Vauban, Tsingtan, 17½c. ..... cs. 75,000

Week ended March 17.
Br str Acara, Philippines, 18c. ..... cs 175,000

Week ended March 24.
Br str Mosticks, Bombay, 20c. ..... cs 140,000
Ger bk Ecuador, Hong Kong, 16c. ..... cs 90,000
Am shp E B Sutton, Penang, 13¼c. ..... cs 60,000
Br str Avala, Shanghai, 21c. ..... cs 135,000

Week ended April 7.
Br str Crewe Hall, Hong Kong, 17½c. cs 160,000

Week ended April 14.
It bk Pellegrini O, Fremantle, 12½c. ..... cs 55,000
Am str Anglo-Canadian, Australia, 20c. ..... cs 145,000

Week ended April 21.
Ger bk Albert Rickmers, Hong Kong, 16c. ..... cs. 70,000
Br str Kendal, Rosario, 13c. ..... cs. 80,000

Week ended April 28.
Br str Crosby Hall, Shanghai, 19c. ..... cs 150,000
—— str ——, Madras, 16½c. ..... cs 175,000

Week ended May 12.
Br bk Marlborough Hill, Sydney, N S W, 11½c. ..... cs 95,000

Philadelphia.

Week ended Feb. 10.
Br str Agincourt, Hankow, 23c. ..... cs. 160,000
Br shp Vincent, Hong Kong, 17½c. ..... cs. 75,000

Week ended March 10.
Fr bk Antoinette, Haiphong, 21c. ..... cs. 25,000

Week ended April 7.
Br shp Celtic Chief, Hong Kong, 16c. ..... cs 65,000
Nor bk Patagonia, Baltic, 2s. 6d. 7,500
Nor bk Rolf, Baltic, 2s. 4½d. 7,500
Nor shp Hermanos, Baltic, 2s. 4½d. 9,500

Week ended April 14.
Br bk Willscatt, Sydney, 11½c. ..... cs 65,000

Week ended April 28.
Am sch Frank T. Stinson, Havana, 10c. cs 30,000

Week ended May 12.
Ger str Burgermeister Hachmann, Australia, 19c. ..... cs 160,000
Br str Seneca, Japan, p t. ..... cs 180,000
Br str Turbo, Continent, p t. 30,000

(Continued on page 40.)

UNION PETROLEUM COMPANY,

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Exporters of every product of Petroleum. Facilities for shipping bulk cargoes of Illuminating and Gas Oils.

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Greases of all kinds,
Illuminating Oils,
Gasoline and Naphtha,
Gas Oils and Fuel Oils,

300° Mineral Seal,
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Paraffine Oils,
Twine and Bagging Oils,

Wool Stocks,
Mineral Soap Stocks,
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Oils, Etc.

Vegetable Oils.

Linseed, city, raw in bbls	℔ gal.	48 @49
boiled, in bbls		50 @51
out of town on spot		46 @47
Calcutta, raw, in bbls		60 @—
Varnish oil, American		48 @49
Calcutta		60 @—
Cottonseed, crude, prime		—@—
" " f. o. b. mills		21 @21½
Crude, off quality		—@—
Yellow summer, prime		27½@27¾
Yellow summer, butter		28½@29
Yellow summer, off qu'ty		—@—
White summer		28½@30
Yellow winter		29 @30
Winter white		30 @32
Soap stock	℔ lb.	—@—
Olive	℔ gal.	54 @57
Olive soap stock	℔ lb.	5⅝@ 5½
Palm, red		5½@ 5¾
Lagos		5¾@ 5½
Cocoanut, Ceylon		6¼@ 6¾
Cochin		6¾@ 7½
Corn		3½@3.65
Castor oil No. 3		9½@11
Mustard	℔ gal.	54 @55
Peanut, white		51 @52
yellow		43 @44
China wood oil	℔ lb.	6 @ 6½
Pine oil	℔ gal.	20 @20½
Rosin, first run		19 @19½
second run		21 @21½
third run		23 @23½
fourth run		25 @25½
Rapeseed, in bbls., burning		62 @63
blown		54 @55
refined		54 @55

Animal and Fish Oils.

Black fish, crude	℔ gal.	30 @33
bleached, winter		43 @45
Cod, domestic, prime		35 @37
Newfoundland		40 @42
Degras, French	℔ lb.	4⅛@ 4¾
English		2¾@ 3
German		2⅝@ 2¾
American		2⅝@ 2¾
Herring	℔ gal.	18 @19
Lard, prime, winter		58 @60
off prime		50 @52
Extra No. 1		47 @48
No. 1		35 @39
Menhaden, Northern		18 @19
Southern, f. o. b. Baltimore		17 @18
Brown strained		28 @29
Light strained		29 @30
Bleached winter		31 @32
Ex. bleached winter white		32 @33
Neatsfoot, 20 deg. cold test		90 @99
30 deg. cold test		84 @85
40 deg. cold test		61 @62
Prime		49 @50
Dark		47 @48
Red, Elaine		31 @32
Saponified	℔ lb.	4¾@ 5
Seal, bleached, refined	℔ gal.	39 @42
Sea Elephant, natural winter		43 @45
bleached winter		45 @46
Sod, American		13 @18
English		25 @35
Sperm, crude, f. o. b. New Bedford		60 @—
Natural, spring		— @—
Natural, winter		60 @63
Bleached, spring		— @—
Bleached, winter		63 @65
Tallow, acidless		57 @59
Prime		51 @53
Dark		46 @47
Whale, crude		—@—
Natural, winter		42 @44
Natural, spring		—@—
Bleached, spring		—@—
Bleached, winter		44 @46
Extra bleached, winter		46 @48

Mineral Oils.

Black reduced, 29 gravity, 25@30 c. t.		10½@11½
29 gravity, 15 cold test		11½@12½
27 gravity, zero		16 @17
Summer		10½@11½
Cylinder, light, filtered		18 @19
Dark, filtered		16 @17
Extra cold test		22½@23½
Dark, steam refined		12 @14
Natural, Franklin, 32 gravity		10 @15
Smiths Ferry, 32@34 gravity		8 @ 9½
West Virginia, 29 gravity		19 @22
Neutral filtered lemon, 33@34 gravity		15 @19½
White, 33@34 gravity		22½@24½
32@34 gray, bloomless		14½@19½
32 gray, wool grade		13½@14½
Paraffine, high viscosity		21½@24½
903-907 sp. gr.		12½@13
903 sp. gr.		11½@12
883 sp. gr.		9½@ 9½
875 sp. gr.		8½@ 9
865 sp. gr.		8½@ 9
Red paraffine		11½@18
Spindle, No. 1, filtered		15 @16
No. 1		12 @13
No. 2		11 @12
No. 3		10 @11
No. 4		9½@10

Oil Cake, Meal, Etc.

Calcutta, cake, city	℔ long ton.	28.00@—
City, domestic	℔ long ton.	28.00@—
Western, in bags	℔ long ton.	28.00@—
Cottonseed cake at Memphis	℔ short ton.	—@—
at New Orleans	℔ long ton.	25.25@—
at Galveston	℔ short ton.	24.00@—
at Boston	℔ long ton.	27.00@—
Cottonseed meal at Memphis	℔ short ton	—@—
at New Orleans	℔ long ton.	25.00@—
at Galveston	℔ short ton.	24.00@—
Corn, cake	℔ short ton.	—@—
meal	℔ short ton.	—@—

Wax, Lard, Tallow, Etc.

Paraffine wax, crude	℔ lb.	5 @ 5¼
refined, 120 m. p.		6 @ 6½
125 m. p.		6½@ 6⅝
130 m. p.		7⅛@ 7⅛
135 m. p.		8⅛@ 8¼
140 m. p.		13½@14
Candles, adamantine, 6s. 16 ozs		8½@ 9
14 ozs		9½@ 9
paraffine, 4s. and 6s		10 @11
12s., 16 ozs		11 @12
14 ozs		11 @—
16 ozs		— @—
Candles, patent sperm, 4s. and 6s		38 @40
sperm, 4s. and 6s		33 @34
Stearic acid—		
Plain, 4s., 6s. and 8s		10½@—
patent ends, 4s. and 6s		11 @—
cartons, 6 lbs. each		11½@—
Lard, spot, tierces		7 @ 7⅛
export, packages		7 @—
compounds		5¼@ 5½
neutral		8⅜@ 8½
Lard, stearine		8 @ 8¼
Oleo, stearine		8 @—
Tallow		4½@ 5½
Stearic acid		9 @ 9¼
Whalebone, Arctic, prime		6.00@—
Northwest		5.00@—
South Sea		4.50@—

Naval Stores.

Spirits, turpentine, spot	℔ gal.	64½@ —
Rosin, strained	℔ bbl.	3.50 @ —
Good strained		3.50 @ —
D		3.55 @ —
E		3.80 @ —
F		3.90 @ —
G		4.00 @ —
H		4.10 @ —
I		4.15 @ 4.20
K		4.40 @ —
M		4.60 @ —
N		4.80 @ —
Window glass		4.90 @ —
W. W		5.00 @ —
Tar oil, barrels of 50 gallons		5.60 @ 5.75
Pitch		2.65 @ 2.75

Paints, Varnishes, Etc.

White Lead, Zincs, Etc.

White lead, American dry	℔ lb.	5¼@ 5½
In oil		6¼@ 6¾
English in oil		9⅛@ 9¼
Litharge, American, powdered		6 @ 6½
English glassmakers		8¾@ 9
Red lead, foreign		8 @ 8¾
American		6¼@ 6½
English glassmakers		7¼@ 7½
Orange mineral, American		8 @ 8¼
English		8 @10
French		10½@11¼
German		7¾@10
China white		9¼@ 9½
Flake white		9⅛@ 9¼
Cremnitz, white		10 @12
Zinc white, Paris G. S., 50 bbls.	9⅛ less 4	℔ ct
G. S., 25 bbls.	9⅛ 2	℔ ct
G. S., 10 bbls.	8¾ 1	℔ ct
R. S., 50 bbls.	8¾ 4	℔ ct
R. S., 25 bbls.	8¾ 2	℔ ct
R. S., 10 bbls.	8¾ 1	℔ ct
Antwerp R. S., 50 bbls.	7⅝ 4	℔ ct
R. S., 25 bbls.	7⅝ 2	℔ ct
R. S., 10 bbls.	7⅝ 1	℔ ct
G. S., 50 bbls.	8¾ 4	℔ ct
G. S., 25 bbls.	8¾ 2	℔ ct
G. S., 10 bbls.	8¾ 1	℔ ct
G. S. in poppy oil	11⅝@12⅝	
R. S. in poppy oil	10⅝@11⅞	
American extra dry	4¾@ 4¾	
Florence Green seal	7 @ 7¾	
Florence Red Seal	6¼@ 6¾	
German Red Seal	6⅜@ 6½	
green seal	6¾@ 7	

Dry Colors.

REDS.

Carmine, No. 40	℔ lb.	3.50 @3.60
Crocus martus, imported		2½@ 3½
standard, American		1 @ 2½
Indian red, standard American		3 @ 3½
English		4½@ 5½
Rose pink, American		8 @ 10½
English		8½@ 16
Tuscan red, English		7 @ 10
Turkey red, English		4 @ 10
Venetian red, English	℔ 100 lbs.	1.15 @1.75
American		50 @1.25
Vermilion, imported English	℔ lb.	75 @ 80
American quicksilver, bulk		— @ 65
bags		— @ 66
Chinese		90 @1.00
American		10 @ 25

BLACKS.

Bone	℔ lb.	3 @ 5
Carbon		5 @10
High grade		15 @28
Drop, American		4 @ 6
English		5 @15
Ivory		16 @20
Lamp, commercial		4½@ 6
Refined		7 @15
Calcined		9 @20
fine, spirit		20 @35

BLUES.

Celestial	℔ lb.	4 @ 6
Chinese		29 @33
Italian		18 @25
Prussian		27 @30
Prussian, foreign		32 @36
Refiners'		60 @70
Soluble		29 @33
Ultramarine		4½@15
Verditer		22 @30

BROWN.

Sienna, Italian, burnt and powdered	℔ lb.	3 @ 9½
burnt, lump		1½@ 3
raw, powdered		3 @ 6½
raw, lump		1½@ 3
American, burnt and powdered		1½@ 2
raw		1½@ 2
Spanish brown		½@ 1
Umber, Turkey, burnt and powdered		2½@ 3½
burnt, lumps, selected		3 @ 4½
raw and powdered		2½@ 3½
raw, lumps		3 @ 4½
American burnt		1½@ 2
raw		1½@ 2

GREENS.

Chrome, chemically pure	℔ lb.	17 @25
extra		12 @15
super		8 @10
common		5½@ 6
Paris, in bulk		12 @12½

YELLOWS.

Chrome	℔ lb.	11 @ 14
Ocher, French		1½@ 2½
Foreign, golden		3 @ 4
German		2½@ 3
Domestic	℔ ton.	8.50 @16.00
golden	℔ lb.	2½@ 3½

Miscellaneous.

Barytes, prm e white, foreign	℔ ton.	17.50 @19.00
foreign f oated		19.00 @21.00
domestic, prime white		16.00 @17.50
floated		17.00 @10.00
off color No. 2		13.00 @15.00
off color		11.00 @13.00
crude, No. 1		10.00 @11.00
No. 2		8.00 @ 9.00
No. 3		7.00 @ 8.00
Blanc fixe, in bulk (orin'l casks 1,000 lbs. each)	℔ ton.	42.00 @43.00
dry (in bbls., 600 lbs.)		2¾@ 3
Bronze powder		55 @ 2.50
Brocades		55 @ 1.50
Chalk	℔ ton.	3.00 @ 3.25
Clay, China, imported		11.00 @17.00
Domestic		8.00 @10.00
Coal tar, in oil bbls		4.50 @ 4.70
Cobalt, oxide	℔ lb.	2.50 @ 2.60
Feldspar	℔ ton.	10.00 @12.00
Fuller's earth, lump	℔ 100 lbs.	80 @ 85
powdered		80 @ 85
Lithopone		3½@ 7
Marble flour	℔ ton.	7.00 @ 8.00
Manganese, car lots		22.00 @60.00
jobbing	℔ lb.	2½@ 3½
Magnesite, raw	℔ ton.	7.00 @ 8.00
calcined, pow'd	℔ lb.	1¾@ 2
Plaster	℔ bbl.	1.40 @ 1.50
dentists'		1.75 @ —
Pumice stone, orin'l cks	℔ lb.	1¾@ 4
selected lumps in bbls		3½@ 5
powdered pure, bbls		1¼ @ 2
Putty, com'l in bbls. or tubs		1.05 @ 1.10
pure, in do		1.40 @ —
linseed oil, in do		1.70 @ —
colored, in do		1.95 @ —
white lead, in do		2.20 @ —
com'l, in 12¼, 25, 50-lb. tins		1.40 @ 1.55
pure, in do		1.70 @ 1.85
linseed oil, in do		2.00 @ 2.15
colored, in do		2.25 @ 2.40
white lead, in do		2.50 @ 2.65
com'l, in 1, 2, 3, 5-lb. tins		2.00 @ 2.90
pure, in do		2.80 @ 3.20
linseed oil, in do		2.60 @ 3.50
colored, in do		2.85 @ 3.75
white lead, in do		3.10 @ 4.00
com'l, in bladders		1.70 @ —
pure, in do		2.00 @ —
linseed oil, in do		2.30 @ —
Rottenstones, orin'l casks	℔ lb.	4 @ 7½
selected lumps		5½@ 25
powdered, in bbls		3 @ 4
Silex	℔ ton.	12.00 @40.00
Smalt, German blue	℔ lb.	6 @ 10
super, black		4 @ 7
Talc, American	℔ ton.	16.00 @25.00
French		20.00 @30.00
Italian		30.00 @75.00
Terra alba, Amer. No. 1	℔ 100 lbs.	60 @ 70
No. 2		45 @ 50
English		90 @ 1.00
French		90 @ 1.00
Whiting, commercial		43 @ 48
Gliders'		50 @ 55
extra gliders'		55 @ 60
American, Paris		64 @ 68
English cliffstone		75 @ —

Glues.

Extra white	℔ lb.	18 @ 24
Medium white		14 @ 17
Cabinet		11 @ 15
Low grade		9 @ 12
Foot stock, white		11 @ 14
brown		8 @ 11
Common bone		7 @ 8
Irish		13 @ 16
French		10 @ 40
German hide		12 @ 18
common		10 @ 12
Fish, liquid (in bbls. 50 gal. each)	℔ gal.	.55 @ 1.25

Varnish Gums.

Asphaltum, Barbadoes	℔ lb.	2½@ 4
Cuban		1½@ 3½
Egyptian		6½@ 7½
Copal, Sierra Leone, cleaned		60 @75
Zanzibar, pure white		55 @60
thumb size		35 @40
sorts		24 @26
bean and pea		25 @27
Manila, pale		10 @17
hark hard		12 @13
bright amber		11 @13
standard sorts		8 @ 9
nubs, No. 1		6 @ 6½
nubs, No. 2		4½@ 4⅝
chips, No. 1		4½@ 4⅝
chips, No. 2		3¾@ 4¼
Damar, Batavia		12½@13
Singapore		8 @ 9
Kauri, No. 1		30 @32
No. 2		21 @23
No. 3		16 @17
Chips		14 @25
Dust		6½@12
B, 1		17 @18
B, 2		12 @14
Brown chips		6 @15
Brown dust		4 @ 5
Brown sugar		7 @ 9
Single cross		83 @85
Double cross		40 @45
Triple cross		41 @48
Picture quality		65 @75
Pale and fine selected		50 @65

WINDOW GLASS.

Eastern Price List.

AMERICAN WINDOW GLASS.

SINGLE.

United Inches.	AA	A	B
25	$32.50	$26.75	$25.00
34	33.50	28.00	26.75
40	36.00	30.00	28.00
50	37.50	31.75	29.50
54	38.75	32.75	30.00
60	40.00	34.75	31.00
70	42.75	38.50	33.75
80	48.75	44.50	38.50
84	52.00	47.50	41.75

DOUBLE.

United Inches.	AA	A	B
25	$42.75	$37.50	$35.50
34	46.75	41.50	38.75
40	52.00	54.50	41.50
50	56.00	49.50	46.00
54	57.50	50.75	46.75
60	58.75	52.00	47.50
70	62.75	56.00	50.75
80	68.00	61.50	55.50
84	69.50	62.75	56.75
90	73.50	66.75	61.50
94	74.75	68.00	62.75
100	88.00	80.00	74.75
105	94.75	86.75	80.00
110	105.50	97.50	90.75
115	118.75	108.00	101.50
120	140.00	126.75	120.00
125	153.50	140.25	133.50
130	167.00	153.75	147.00

An additional 10 per cent. will be charged for all glass more than 40 inches wide. All sizes over 52 inches in length, and not making more than 84 united inches, will be charged in the 84 united inches bracket. All glass 54 inches wide or wider, not making more than 116 united inches, will be charged in the 120 united inches bracket.

The discounts at present are 90 and 20 per cent. on the first two brackets for single strength and 90 and 20 per cent. on all other sizes.

Western Price List.

AMERICAN WINDOW GLASS.

SINGLE.

United Inches.	AA	A	B
25	$32.00	$26.75	$25.50
34	33.50	28.00	26.75
40	36.00	30.00	28.00
50	37.50	31.75	29.50
54	38.75	32.75	30.00
60	40.00	34.75	31.00
70	42.75	38.50	33.75
80	48.75	44.50	38.50
84	52.00	47.50	41.75

DOUBLE.

United Inches.	AA	A	B
25	$42.75	$37.50	$35.50
34	46.75	41.50	38.75
40	52.00	45.50	41.50
50	56.00	49.50	46.00
54	57.50	50.75	46.75
60	58.75	52.00	47.50
70	62.75	56.00	50.75
80	68.00	61.50	55.50
84	69.50	62.75	56.75
90	73.50	66.75	61.50
94	74.75	68.00	62.75
100	88.00	80.00	74.75
105	94.75	86.75	80.00
110	105.50	97.50	90.75
115	118.75	108.00	101.50
120	140.00	126.75	120.00
125	153.56	140.25	133.50
130	167.00	153.75	147.00

Additional 10 per cent. will be charged for all glass more than 40 inches wide. All sizes over 52 inches in length, and not making more than 81 united inches, will be charged in the 84 united inches bracket. All glass 54 inches wide or wider, not making more than 116 united inches, will be charged in the 120 united inches bracket,

The discounts at present are 90 and 20 per cent. on the first two brackets for single strength, and 90 and 10 per cent. on other sizes above.

Metallic Paints.

Brown	℔ ton.	19.00@21.00
Red		16.00@20.00

Colors in Oil.

Black coach Japan	℔ lb.	20 @25
in oil		14 @18
drop		14 @18
lampblack		12 @14
Blue, Chinese		30 @40
Prussian		22 @30
ultramarine		13 @16
Brown, sienna, burnt		12 @15
raw		12 @15
Umber, burnt		11 @14
raw		11 @14
Vandyke brown		11 @14
Green, chrome		10 @15
Paris		— @24
Red, Indian		12 @14
Venetian		6 @ 8
Yellow, chrome		16 @30
ocher, French		6 @ 8

Drugs.

Opium.

Opium, cases		2.85 @ 2.90
powdered		3.40 @ 3.45

Morphine.

Morphine, bulk	℔ oz.	2.10 @ 2.20
oz. vials		2.15 @ 2.25
¼ oz. vials, 2½ oz. bxs		2.35 @ 2.45

Codeine.

Codeine, pure, bulk	℔ oz.	3.20 @ 3.40
ozs.		3.35 @ 3.45
eighths		3.45 @ 3.65

Sulphate, nitrate and muriate, 25c., and phosphate, 50c. per oz. less than pure.

Quinine.

Quinine, 100 oz. tins		20 @ —
50 oz. tins		20½@ —
25 oz. tins		21 @ —
5 oz. tins		22 @ —
1 oz. tins		25 @ —
German outside		19½@ 20
Java		19 @ 19½
Cinchonida, bulk		14 @ 15

Miscellaneous.

Acetanilid, in bbls	℔ lb.	21½@ 23
Acetone		17 @ 18
Acid, benzoic, true	℔ oz.	11 @ 13
ex toluol	℔ lb.	33 @ 35
boracic, crystals, city		10 @ 11
powdered, city		10 @ 11
carbolic, drums		13 @ 14
bottles		19 @ 23
citric, domestic		34 @ 35½
pyrogallic, bulk		1.65 @ 1.70
salicylic		81 @ 84
Alcohol, 94% net	℔ gal.	2.41 @ —
ref. wood, 95%		70 @ —
97%		75 @ —
purified		1.25 @ 1.30
Aloin	℔ lb.	40 @ 50
Ambergris, black	℔ oz.	18.00 @20.00
gray		27.50 @28.00
Ammonia, carb., domestic	℔ lb.	8½@ 8¼
foreign		8½@ 8¼
Antimony, needle		5 @ 7
Areca nuts		5 @ 6
Balm of Gilead buds		35 @ 38
Barium, chloride		1¼@ 1¼
chlorate		16 @ 18
nitrate		5 @ 5½
Barbadoes tar, in bbls	℔ bbl.	20 @ 25
Bayberry wax	℔ lb.	45 @ 50

Bay rum, bbls		1.80	@ 2.40
Beeswax, white, pure		42	@ 50
yellow, crude		32	@ 33½
yellow, refined		34½@	36
Bismuth, citrate		2.80	@ 2.85
subcarbonate		2.70	@ 2.75
subgallate		2.50	@ 2.55
subnitrate		2.45	@ 2.50
Blue pill		34	@ 37
Borax crystals, in bbls		7¾@	8
powdered		7¾@	8½
Bromide, ammonium		22	@ 27
potassium		15	@ 20
sodium		20	@ 25
Bromine, bulk		—	@ 80
Burgundy pitch		3	@ 3½
Caffeine		—	@ 2.65
Calomel, American		77	@ 79
English		—	@ 1.60
powdered		55	@ 58
Cantharides, Chinese		49	@ 52
powdered		53	@ 55
Russian		1.20	@ 1.25
powdered		1.20	@ 1.25
Carnauba wax, Flor		—	@ —
No. 1		48	@ 50
No. 2		40	@ 42
No. 3		31½@	33
North Country		32½@	34
Carbon, bisulphide		5	@ 7
Castile soap, white, pure		10%@	—
Marseilles		8	@ 10
green, pure		8	@ 10
ordinary		6	@ 6½
mottled, pure		6½@	7
ordinary		5½@	6
Castor oil, city, bbls		10¼@	11¼
cases		10¾@	11¾
Ceresin, yellow		13½@	15½
white		16	@ 22
Chloral hydrate, crusts		93	@ 95
crystals		95	@ 1.00
Chloroform		27	@ 32
Civet		1.50	@ 1.60
Clover tops		7½@	8
Cocaine, bulk	℔ oz.	3.50	@ 3.75
Cocoa butter, 12-lb. boxes	℔ lb.	35	@ 36
bulk		27	@ 30
Codliver oil, Newf'land	℔ bar.	—	@26.00
Norwegian		25.00	@30.00
Colocynth apples, Spanish	℔ lb.	27	@ 29
Trieste		33	@ 35
Cologne, spirit, 190%.	℔ proof gal.	1.28½@	1.20½
Corrosive sublimate	℔ lb.	68	@ 80
Coumarin, refined		2.85	@ 3.00
Creosote, beechwood		80	@ 85
Cuttlefish, Trieste		14	@ 15
French		12	@ 14
Jewelers'		42	@ 45
Dragons' blood, mass		18	@ 50
reeds		45	@ 50
Epsom salts	℔ 100 lbs.	85	@ 1.30
Ergot, Russian		33	@ 35
Spanish		35	@ 37
Ether, 1880		53	@ 54
washed		56	@ 57
1900		58	@ 60
Eucalyptol		95	@ 1.00
Formaldehyde		8¾@	9¾
Fusel oil, crude		1.05	@ 1.10
refined		1.35	@ 1.40
Gelatine, silver	℔ lb.	23	@ 28
gold		30	@ 40
Glucose, 42°	℔ 100 lbs.	1.51	@ —
Glycerine, C. P., bulk	℔ lb.	12½@	12¾
drums and bbls. added.			
C. P., cans		13½@	13¾
Dynamite		11½@	11¼
Crude, soap lye		7½@	8½
saponification		9	@ 10
Grains of Paradise		12	@ 12½
Grape sugar, 70°	℔ 100 lbs.	1.51	@ —
Guarana	℔ lb.	50	@ 60
Haarlem oil		1.75	@ 1.85
Hops, N. Y., 1904		27	@ 29
Pacific coast, 1904		26	@ 28
Hypophosphite, lime		60	@ 64
potash		65	@ 69
soda		65	@ 69
Iceland moss		5	@ 6
Insect powder		12	@ 24
Iodine, resublimed		4.15	@ 4.20
Iodoform		4.40	@ 4.45
Irish moss, ordinary		6½@	8
bleached		9½@	10
Isinglass, Russian		3.75	@ 3.80
American		30	@ 35
Japanese		35	@ 40
Japan wax		9¾@	10
Kola nuts		10½@	12
Licorice, mass, Greek		10	@ 12
Spanish		14	@ 20
stick, domestic		16½@	22½
foreign		25	@ 35
Lithia, carb		1.50	@ 1.75
Lupulin		20	@ 21
Lycopodium		88	@ 90
Manna, large flake		45	@ 50
small flake		27	@ 30
sorts		26	@ 27
Menthol		1.85	@ 2.25
Mercury, bisulphate		53	@ 55
Myrbane oil		7	@ 8
Musk, pods, Cab	℔ oz.	4.00	@ 8.00
Tonquin		12.00	@16.00
grain, Cab		—	@14.00
Canton, extra		—	@ 1.00
Canton, good		15	@ 17
Tonquin		18.00	@21.00
Druggists'		14.00	@14.50
Synthetic	℔ lb.	5.00	@10.00
Naphthaline, balls		1.95	@ 2.00
flakes		2	@ 2½
Nitrate silver, crystals	℔ oz.	36½@	39¾
Nux vomica	℔ lb.	2½@	3½
Petrolatum, bbls., amber		2¾@	—
pale yellow		3½@	3¾
lily white		7½@	8
snow white		11	@ 13
Phosphorus		45	@ 1.00
Pilocarpine	℔ oz.	7.50	@ —
Poppy heads	℔ lb.	12	@ 20
Precipitated chalk		3½@	4½
Precipitate, red		87	@ 89
white		92	@ 94
Potash, permanganate		9½@	9¾
cyanide, bulk		20	@ 24
iodide, bulk		3.15	@ 3.20
Quicksilver		53	@ 55
Resorcin		1.15	@ 1.20
Rochelle salt		20½@	21
Saccharine, bulk		3.75	@ 3.85
Salol, bulk		1.00	@ 1.10
¼ lb. bots		1.10	@ 1.20
⅛ lb. bots		1.15	@ 1.25
¼ lb. bots		1.25	@ 1.35
Santonine, crystals, bulk		8.00	@ 8.65
powdered	20c. per lb. advance		
Seidlits mixture		17	@ 17½

Sesame oil	℔ gal.	55	@ 80
Soda benzoate	℔ lb.	32	@ 35
salicylate		32	@ 34
Spermaceti, block		24½@	25
cakes		25	@ 26
St. John's bread		3	@ 3½
Strontia, nitrate		7	@ 9
Strychnine, crystals, bulk	℔ oz.	70	@ —
Sugar of milk, cob		20	@ 22
powdered		15	@ —
Sulphur, roll		1.85	@ 2.15
flour		2.00	@ 2.40
flowers		2.20	@ 2.60
Tamarinds	℔ keg.	1.70	@ 2.00
Thymol	℔ lb.	1.65	@ 1.75
Vanillin	℔ oz.	45	@ 50
Venice turpentine	℔ lb.	11	@ 14
Zinc, chloride, gran		4¾@	5
sulphate		2	@ 2½

Balsams.

Copaiba, Central American	℔ lb.	30	@ 34
Para		35	@ 37
solidifiable		40	@ 45
Fir, Canada	℔ gal.	3.30	@ 3.45
Oregon		75	@ 90
Peru	℔ lb.	1.00	@ 1.05
Styrax		15	@ 17
Tolu		21	@ 22

Barks.

Angostura	℔ lb.	30	@ 40
Bayberry		9	@ 10
Black haw, of root		—	@ 15
of tree		—	@ 7
Buckthorn		6	@ 7
Cascara sagrada		6¾@	10
Cascarilla, quills		13	@ 14
ordinary		10	@ 11
Canella alba		11	@ 13
Cinchona—red, quills		20	@ 22
broken		10	@ 20
yellow, quills		22	@ 30
broken		15	@ 20
Condurango		11	@ 12
Coto		50	@ 55
Cottonroot		8	@ 10
Cramp		8	@ 9
Dogwood, Jamaica		6	@ 7
Elm, select		25	@ 28
Mersereon		8	@ 10
Oak, red		3	@ 4
white		3	@ —
Orange peel, bitter, Curacao, ⅛s		3½@	3¾
sweet, Malaga, pieces		6	@ 7
quarters		9½@	10
sweet, Trieste		4½@	5
Prickly ash, Southern		12	@ 13
Western		14	@ 15
Pomegranate, of fruit		7	@ 9
of root		15	@ 15½
Quebracho		10	@ 11
Sassafras		12	@ 14
Simaruba		18	@ 20
Soap, whole		4½@	5
cut		6	@ 7
Wahoo, of root		25	@ 26
of tree		13	@ 15
White pine		6	@ 7
White poplar		3½@	4
Wild cherry		6½@	9
Witch hazel		3½@	4

Beans.

Calabar	℔ lb.	13	@ 15
St. Ignatius		13	@ 16
Tonka, Angostura		55	@ 58
Para		17½@	23½
Surinam		25	@ 30
Vanilla, Mexican, whole		3.00	@ 8.00
cuts		1.75	@ 3.00
Bourbon		1.25	@ 4.00
Tahiti		50	@ 1.00

Berries.

Cubeb, whole	℔ lb.	7½@	8½
powdered		11	@ 13
Fish (cocculus indicus)		2¾@	3
Juniper		2	@ 2¼
Laurel		4½@	5
Prickly ash		14	@ 15
Saw palmetto		6	@ 8

Essential Oils.

Almond bitter	℔ lb.	3.25	@ 5.75
artificial		50	@ 1.50
sweet, true		38	@ 45
peach-kernel		16	@ 24
Amber, crude		12	@ 15
rectified		15	@ 20
Anise		1.10	@ 1.15
Bay		2.40	@ 2.60
Bergamot		2.05	@ 2.25
Birch tar, crude		12	@ 15
extra		40	@ 60
Cade		18	@ 21
Cajeput		55	@ 65
Camphor		9	@ 12
Caraway seed		1.05	@ 1.25
Cassia, 75@80%		70	@ 75
Cedar		70	@ 85
Cinnamon, Ceylon, heavy		7.50	@16.00
Citronella		40	@ 45
Cloves, cans		62½@	65
bottles		65	@ 67½
Conaiba		65	@ 80
Coriander		7.50	@ 8.00
Croton		75	@ 80
Cubeb		80	@ 85
Cummin		3.00	@ 3.50
Erigeron		85	@ 90
Eucalpytus, Australian		35	@ 70
American		55	@ 60
Fennel seed, sweet		80	@ 1.25
bitter		45	@ 1.00
Geranium rose, African		4.50	@ 5.75
Turkish		1.60	@ 2.00
French		7.50	@12.00
Ginger		3.50	@ 6.00
Gingergrass		1.10	@ 1.35
Hemlock		35	@ 40
Juniper berries		50	@ 1.25
wood		17½@	20
Lavender, cultivated		2.25	@ 2.75
flowers		2.00	@ 2.50
spike		1.00	@ 1.25
garden		58	@ 65
Lemon		57	@ 65
Lemongrass		3.00	@ 3.25
Limes, expressed		1.50	@ 1.60
distilled		85	@ 95
Linaloe		2.00	@ 2.50
Mace, distilled		1.00	@ 1.10
expressed		65	@ 70

Maidenn		2.00	@ 2.20
Mustard, natural		4.25	@ 4.50
artificial		2.00	@ 2.00
Neroli, petale		28.00	@45.00
bigarade		21.00	@32.00
Nutmeg		80	@ 90
Orange, bitter		1.75	@ 2.25
sweet		1.65	@ 1.85
Origanum		18	@ 22
Patchouli		5.50	@ 6.50
Pennyroyal		1.05	@ 1.15
Peppermint, tins		2.80	@ 3.00
bottle		3.30	@ 3.35
Petit grains, French		4.50	@ 5.00
South America		1.75	@ 2.00
Pimento		1.75	@ 2.50
Rhodium		1.75	@15.00
Rose	℔ oz.	3.50	@ 4.50
Rosemary flowers, French	℔ lb.	62½@	80
Trieste		42½@	50
Sandalwood, East India		3.25	@ 3.50
West India		1.50	@ 2.00
Australia		2.75	@ 3.00
Sassafras, natural		55	@ 65
artificial		27	@ 29
Safrol		35	@ 36
Savine		75	@ 1.25
Spearmint		4.75	@ 5.25
Spruce		35	@ 40
Tansy		3.75	@ 4.25
Thyme, red, French		75	@ 1.00
white, French		90	@ 1.25
Wintergreen, nat'l (sweet birch)		1.75	@ 1.85
synthetic		40	@ 45
leaf		2.50	@ 2.75
Wormseed, Baltimore		3.00	@ 3.25
Wormwood, pure		3.50	@ 3.75
Ylang ylang		40.00	@70.00

Flowers.

Arnica	℔ lb.	9½@	10½
Calendula		25	@ 33
Chamomile, Roman		22	@ 25
German, true		15	@ 25
Hungarian		11	@ 12
Elder		10	@ 11
Insect		15	@ 26
Lavender, ordinary		5	@ 8
select		7	@ 9
hand picked		8	@ 10
Mullein		60	@ 65
Poppy, red		—	@ 35
Rosemary		17	@ 20
Saffron, American		—	@ 1.00
Alicante		4.75	@ 5.50
Valencia		6.00	@ 7.50

Gums.

Aloes, Curacao, in boxes	℔ lb.	4	@ 4½
Cape		16	@ 18
Socotrine		16	@ 20
Ammoniac		18	@ 20
Arabics, firsts		30	@ 35
seconds		20	@ 22
thirds		16	@ 19
fourths		13	@ 14
sorts		6½@	9
Asafoetida		15	@ 20
Benzoin, Siam		40	@ 1.00
Sumatra		27	@ 34
Camphor, American, ref'd, bbls.		68	@ —
cases		68½@	—
Chicle		35	@ 40
Euphorbium		13	@ 15
Galbanum		40	@ 45
Gamboge, pipe		—	@ 85
Guaiac		18	@ 24
Kino		25	@ 30
Mastic		45	@ 48
Myrrh		28	@ 30
Siftings		22	@ 23
Olibanum, siftings		5½@	—
sorts		6	@ 7
tears		10	@ 12
Sandarac		17	@ 17½
Scammony, rosin		2.00	@ 2.10
Aleppo		2.50	@ 2.75
Virgin		5.50	@ 6.00
Senegal, picked		11	@ 20
sorts		7	@ 8½
Spruce		1.25	@ 1.75
Tragacanth, Aleppo, firsts		64	@ 68
seconds		50	@ 55
thirds		40	@ 45
fourths		27	@ 35
Turkey firsts		75	@ 90
seconds		45	@ 57
thirds		36	@ 41

Herbs and Leaves.

Aconite	℔ lb.	8	@ 9
Althea		10	@ 12
Bay		14	@ 15
Belladona		10	@ 12
Buchu, short		16	@ 19
long		50	@ 60
Cannabis indica, tops		1.00	@ 1.05
siftings		95	@ 1.00
Coca, Huanoco		32	@ 35
Truxillo		18	@ 20
Coltsfoot		7	@ 9
Conium		7	@ 8
Damiana		7½@	9
Deer tongue		5½@	6
Digitalis		7	@ 9
Eucalyptus		5½@	6
Grindelia robusta		20	@ 21
Henbane		6½@	7
Horehound		4½@	4½
Jaborandi		13	@ 14
Laurel		8	@ 8½
Lobelia		10	@ 11
Matico		23	@ 30
Marjoram, German		21	@ 22
French		8½@	9
Pennyroyal		—	@ 6
Peppermint, American		12½@	15
German		25	@ 30
Pichi		14	@ 15
Pulsatilla		7	@ 8
Prince's pine		—	@ 10
Rose, red		65	@ 75
Rosemary		3½@	4
Rue		12	@ 13
Sage, Italian picked		3½@	4½
Savory		4	@ 5
Scull cap		12	@ 14
Senna, Alex, whole leaf		17	@ 20
half leaf		9½@	11
siftings		5½@	6
Tinnevelly		8	@ 10
Stramonium		7	@ 8
Thyme		3	@ 3½

Uva ursi		3½@	3½
Witch hazel		4	@ 5
Wormwood, foreign		6½@	7
Yerba santa		15	@ 18

Roots.

Aconite, German	℔ lb.	5½@	7½
Alkanet		3½@	3¾
Althea, whole		12	@ 15
cut		10	@ 20
Angelica, German		11	@ 12
American		10	@ 11
Arnica		9	@ 12
Arrowroot, Bermuda		35	@ 40
St. Vincent, bbls		7½@	8
Belladona, Atropa		10	@ 11
Berberis Aquifolium		13	@ 14
Bitter		16	@ 18
Blood		11	@ 12
Bluefag		—	@ 8
Byronia		8	@ 9
Burdock		8½@	8½
Calamus, bleached		30	@ 35
unbleached		7	@ 8
Cohosh, black		3½@	4½
blue		—	@ 5
Colchicum		11	@ 12
Colombo		4½@	5
Culvers		8½@	9
Dandelion, German		7	@ 8
Doggrass		5½@	5½
Galangal		5½@	6
Gelsemium		5	@ 5½
Gentian		4	@ 4½
Ginseng, Southern		5.75	@ 6.25
Northwestern		7.25	@ 7.50
Eastern		7.75	@ 8.00
Ginger, Jamaica, unbleached		6½@	7½
bleached		9	@ 10
Golden seal		1.55	@ 1.60
Hellebore, white		5	@ 5½
black		4½@	5
powdered		6	@ 7
Hydrangea		10	@ 12
Ipecac, Rio		1.25	@ 1.30
Cartagena		1.25	@ 1.30
Jalap		8½@	11
Kava kava		11	@ 12
Lady slipper		—	@ 50
Licorice, in bales		3½@	4
selected, bundles		7	@ 9
Lovage, American		75	@ 85
German		10	@ 12
Mandrake		5%@	6
Musk, Russian		12	@ 13
Orris, Florentine, bold		7	@ 8
small		6½@	6
Verona		4	@ 5
fingers		60	@ 1.25
Pareira brava		10	@ 11
Pellitory		12	@ 13
Pink		24	@ 25
Pleurisy		12	@ 13
Poke		4½@	5
Rhatany		11	@ 12
Rhubarb, Canton		35	@ 40
Shensi		65	@ 70
high dried		20	@ 21
clippings		20	@ 50
Sarsaparilla, Honduras		25	@ 30
Mexican		8½@	9
Senega, Southern		—	@ 75
Western		64	@ 65
Serpentaria		40	@ 42
Skunk cabbage		9	@ 10
Snake, Canada		14	@ 22
Squaw vine		8½@	9
Stillingia		5	@ 6
Stone		5	@ 6
Squill		3½@	3¾
Unicorn, false		45	@ 47
true		40	@ 45
Valerian, German		15	@ 16
Belgian		6½@	7½
English		12	@ 15
Wild yam		5	@ 6
Yellow dock		—	@ 6
Zedoary		9	@ 10

Seeds.

Anise, Italian, sifted	℔ lb.	5½@	6
Spanish		5	@ 5½
Germany		5½@	5½
star		17	@ 17½
Canary, Sicily		5	@ 5½
Smyrna		4¾@	5
Caraway, Dutch		5½@	5¾
Cardamoms, bleached		30	@ 90
decorticated		28	@ 33
Celery		7½@	8
Colchicum		25	@ 30
Conium		7	@ 7½
Coriander, natural		3	@ 3½
bleached		9	@ 9½
Cummin, Malta		6½@	7
Fennel, German		10	@ 11
Italian		5	@ 5½
Flax, per bbl		6.00	@ 6.50
ground, per lb		3½@	3¾
Fenugreek		2¾@	3
Hemp, Russian		2¾@	3
Larkspur		28	@ 30
Lobelia		45	@ 50
Millet, natural		1¾@	2
shelled		—	@ —
Mustard, brown Bari		5½@	6
California		6	@ 6½
German		3½@	4
Sicily		5½@	5½
yellow, California		4½@	4½
German		3½@	3¾
Poppy		4½@	4¾
Pumpkin		10	@ —
Quince		34	@ 35
Rape, English		4	@ 5
German		2¾@	3
domestic		3½@	3
Sabadilla		9	@ 10
Stavesacre		9	@ 10
Stramonium		11	@ 12
Strophantus, Kombe		1.15	@ 1.25
Hispidus		50	@ 55
Sunflower		4	@ 4¼
Worm, Levant		14½@	15
American		8	@ 9

Shellac.

D. C.		65	@ —
Diamond I.		50	@ 52
V. S. O.		50	@ 52
Octagon B.		45	@ 50
Fine orange		40	@ 45
A. C. garnet		33	@ 35
T. N.		30	@ 31
Button		38	@ 45
Bleached, commercial		30	@ 31
Bone, dried		40	@ 41

Spices.

Cassia, Batavia, No. 1	℔ lb.	18 @	19
Batavia, No. 2		12 @	14
China mats		7½@	—
cases		9 @	9½
broken		4 @	8
Saigon rolls		58 @	—
broken		83 @	84
buds		18 @	19
Chillies, Japan		10 @	10½
Zanzibar		11¾@	12
Cloves, Amboyna		18 @	19
Zanzibar		10½@	10¾
Clove stems		4½@	5
Ginger, Cochin		5 @	5½
African, No. 1		5 @	5½
Mace, Banda, No. 1		45 @	46
Penang, No. 1		40 @	42
Penang, No. 2		35 @	38
Nutmegs, 105s to 110s		16 @	16½
Pepper, Acheen		10¾@	11
Lampong		11½@	12
Singapore		12 @	12¼
white		16½@	17
Tellicherry		12½@	13
Pimento, No. 1		5 @	5¼
grinding		4¾@	5

Chemicals.

Heavy Chemicals.

Alkali, 48 per cent.	℔ 100 lbs.	87½@	90
ammonia, high test		75 @	85
Bleach, over 35 per cent		1.25 @	1.50
Salt cake, glass makers'		65 @	67½
Soda ash, carb. 48 per cent		1.25 @	1.50
high test		1.00 @	1.25
Soda, bicarb, English		3.50 @	6.00
American		1.30 @	1.70
Soda, caustic, domestic.			
60 per cent		1.85 @	1.90
70 per cent		1.75 @	1.85
74 per cent		1.75 @	1.85
78 per cent		1.75 @	1.85
foreign, 60 per cent		— @	—
70 per cent		— @	—
74 per cent		— @	—
76 per cent		1.90 @	1.95
powdered, granulated			
60 per cent		2.50 @	2.65
70 per cent		2.90 @	3.00
Sal, English		85 @	90
American		90 @	70

Acids.

Acid, acetic	℔ 100 lbs.	2.30 @	4.05
chemically pure	℔ lb.	21 @	22
oxalic		5 @	5.10
pyrollignous		8 @	10
sulphuric, 60 deg.	℔ 100 lbs.	1.10 @	1.30
66 deg.		1.30 @	1.40
bulk, 50 deg.		14.00 @	15.00
muriatic, 18 deg.		1.50 @	1.60
20 deg.		1.60 @	1.70
22 deg.		1.75 @	2.00
aqua fortis, 36 deg.	℔ lb.	4½@	47
38 deg.		4½@	5
40 deg.		4¾@	5¼
42 deg.		5½@	5½
nitric, 36 deg.		5½@	6
38 deg.		5½@	6
40 deg.		6 @	6¼
42 deg.		5¾@	6¼
tartaric, crystals		29 @	29½
powdered		29½@	29¾

Miscellaneous Chemicals.

Acettate of lime, gray	℔ 100 lbs.	2.35 @	2.40
brown		1.60 @	1.65
Alum, lump		1.75 @	1.80
ground		1.85 @	1.95
powdered		3.00 @	3.25
Aq. am'ia (in dms) 16 deg.	℔ lb.	3¾@	4
18 deg.		4 @	4½
20 deg.		3½@	3¾
26 deg.		4¾@	5
Ammoniac, sal, gray		5¾@	6
granulated		5½@	6¼
lump		9¼@	9½
Ashes, pot, 1st sorts		5¼@	5¾
pearl		6¾@	7
Argols, powdered		3¾@	4
red		2¼@	3¼
Arsenic, white		2¾@	3¾
red		6¾@	7
Brimstone, crude foreign	℔ ton	21.00 @	21.25
domestic		20.75 @	21.50
Cream tartar, crystals, p. c.	℔ lb.	23½@	23¾
powdered, 90 p. c.		23¾@	24
Chlorate of soda		8½@	9
Chloride of calcium	℔ ton.	10.00 @	15.00
Copperas	℔ lb.	52½@	65
Glauber's salt		25 @	45
Nitrate of lead		7 @	7¼
Potash, chlorate, crystals		8¼@	8¾
powdered		8¾@	9
carb.		4 @	4¾
caustic		4½@	7
Sugar of lead, brown		7¼@	7½
white		9½@	9¾
Saltpeter, crude		4½@	4.55
refined		4½@	5½
Sulphate, alumina		¾@	1¼
Vitriol, blue		5 @	5.15

Fertilizer Materials.

Ammoniates.

Ammonia sulphate foreign spot	℔ 100 lbs.	3.15 @	3.17
futures		3.15 @	3.17
Ammonia sulphate domestic spot		3.10 @	3.15
futures		3.10 @	3.12
Fish scrap, dried, 10 p. c. ammonia and 14 p. c. bone phosphate, f. o. b. fish works	℔ ton.	2.37½&	10
wet, acidulated, 6 p. c. ammonia f. o. b. fish works		2.20 &	35
Ground fish guano, imported, 10 and 11 p. c. ammonia and 16-17 p. c. bone phosphate, c. i. f. N. Y., Balt. or Phila		2.55 &	10
Azotine	℔ unit.	2.55 @	2.60
Tankage, concentrated, 15@16 p. c., f. o. b. Chicago		2.20 @	2.25
Tankage, 10-11 p. c. and 10-15 p. c., f. o. b. Chicago		2.15 @	2.10
Tankage, 9 and 20 p. c., f. o. b. Chicago		2.00 &	10
Tankage, 7 and 30 p. c., f. o. b. Chicago	℔ ton.	16.00 @	17.00
Tankage, 6 and 35 p. c., f. o. b. Chicago		16.00 @	17.00
Garbage, tankage		8.00 @	9.00
Hoofmeal, f.o.b. Chicago	℔ unit	2.40 @	2.50
Dried blood, 12-13 p. c. ammonia, f. o. b. New York		2.60 @	2.65
Dried blood, high grade, f. o. b. Chicago		2.35 @	2,40
Nitrate of soda, 96% spot, per 100 lbs.		2.62½@	2.82½
future, 96%		2.52½@	2.22½
Nitrate of soda, 95% spot		2.60 @	2.80
future, 95%		2.50 @	2.22

Phosphates.

Acid phosphate	℔ unit.	60 @	67½
Bones, junk	℔ ton.	16.00 @	16.50
butcher		16.00 @	17.00
ground, steamed, 3 p. c. ammonia and 50 p. c. bone phosphate		22.00 @	23.00
ground steamed, 1½ p. c. ammonia and 60 p. c. bone phosphate		19.00 @	21.00
unground, steamed		18.00 @	20.00
hard boiled		20.00 @	22.00
Bone black oil discard		12.00 @	16.00
sugar discard		16.00 @	20.00
Phosphate rock, ground, f. o. b. Charleston, 2,000 lbs.		5.00 @	5.25
So. Carolina phosphate rock, undried, per 2,400 lbs., f. o. b. Ashley River		3.50 @	3.75
So. Carolina phosphate rock, hot air dried, f. o. b. Ashley River		4.00 @	—
Florida land pebble phosphate rock, f. o. b. Fernandina, per ton		4.00 @	4.25
Florida high grade phosphate hard rock, f. o. b. Fernandina, per ton		7.00 @	7.25
Tennessee phosphate rock f. o. b. Mt Pleasant domestic, per ton.		3.55 @	4.00
Tennessee phosphate rock f. o. b. Mt Pleasant, export, per ton.		4.00 @	4.30

Potashes.

Muriate potash, basis 80 p. c., spot	℔ 100 lbs.	1.95 @	1.98
Muriate potash, basis 80 p. c., future		1.00 @	1.03
Manure salt, 20 p. c., actu'l p'ash		14.75 @	15.40
dbl, m're salt, 48 p. c.		1.16½@	1.19½
Sulphate potash (basis 90 p. c.)		2.18½@	2.21½
Kainit, in bags, 2,240 lbs.		9.50 @	—
Kainit, in bulk, do		8.50 @	—

Pyrites.

Spanish crude, unwashed fines, per unit averaging 45 to 52 p. c. of sulphur ex ship		7½@10	
Spanish, smalls washed ore		8 @	8½
Lump ore, washed, averaging 48 to 52 p. c. of sulphur		10 @	10½
Lump, non arsenical high grade ore		11 @	12
Lump, arsenical (not washed)		10½@	11
Domestic pyrites, fines, averaging 45 p. c. sulphur, f. o. b. shipping port		9½@	10
Furnace size, averaging 45 p. c. sulphur, f. o. b. shipping port, per unit.		10½@	11

Dyestuffs.

Acetate of soda	℔ lb.	3¾@	4
Acid, gallic		52 @	55
picric, best crystals		22 @	28
tannic, commercial		35 @	37
crystals		58 @	65
Albumen, egg		45 @	65
blood		21 @	25
Alizarine, red		15½@	16
Aniline oil		10½@	10½
salt, crystals		8¾@	9
Annatto		— @	14
fine		25 @	28
seed		— @	3½
Antimony, oxymurite		4 @	5
salt, 65%		10¼@	11
47%		9 @	10
Bichloride of tin, 50°		9¼@	9¾
60°		12½@	12¾
Bichromate of potash, American		8½@	8¾
Bichromate of soda		6½@	6¾
Bisulphite of soda		1 @	1½
Carmine of indigo		60 @	70
Cochineal, Teneriffe, silver		48 @	50
black		48 @	50
gray black		48 @	50
Cudbear, French		12 @	15
concentrated		23 @	28
English		9 @	12
Cutch, mat		4½@	6
boxes		5 @	8
refined, in boxes		6 @	7½
slabs		6½@	7
Dextrine, imported potato		6¾@	7½
domestic potato		5½@	6
corn		2.35 @	2½
Divi-divi	℔ ton.	35.00 @	40.00
Flavine	℔ lb.	28 @	40
Fustic, stick	℔ ton.	18.00 @	20.00
young root		31.00 @	35.00
Gambier		4¼@	4¾
cube No. 1		6¼@	6½
cube No. 2		5¾@	6
Hypo. of soda, Am., bbls.	℔ cwt.	1.50 @	1.60
kgs.		1.60 @	1.70
German, cks.		1.75 @	2.00
kgs		2.00 @	2.30
Indigo, Bengal, low grade	℔ lb.	52½@	55
medium		60 @	65
high grade		75 @	85
Kurpahs		47½@	60
Guatemala		35 @	70
Manila		43 @	45
Madras		42 @	45
J. (synthetic)		18 @	20
Indigotine		95 @	1.80
Logwood, stick	℔ ton.	15.00 @	19.00
roots		14.00 @	16.00
Madder, Dutch	℔ lb.	7 @	10
French		— @	—
Myrabolams		2¼@	2½
Muriate of tin, 36°		9 @	9¼
52°		15 @	15½
Nitrate of iron, commercial		1¼@	1½
true		4 @	4½
Nutgalls, blue Aleppo		24 @	25
Chinese		14½@	15
Persian, berries		7 @	8
Phosphate of soda		1.90 @	2¼
Prussiate of potash, yellow		13½@	13¾
red		38 @	40
Prussiate of soda		9½@	9¾
Quercitron	℔ ton.	18.00 @	20.00
Sago flour	℔ lb.	1¾@	2
Salts of tartar		4¼@	6
Silicate soda, liquid		¾@	1¼
crystals		2 @	2½
Soluble oil, 50%		6½@	6¾
75@85%		9 @	13
Starch, corn, pearl, in bbls		1.70 @	—
in bags		1.55 @	—
potato		3½@	4
rice		6¾@	7½
wheat		5 @	6
Stannate of soda		12 @	20
Sumac, Sicily No. 1	℔ ton.	42 00 @	47.00
No. 2		40.00 @	42.00
Virginia		— @	—
Tapioca flour	℔ lb.	1.90 @	2¼
Tartar emetic		19 @	22
Tin crystals		22 @	23½
Turmeric, Bengal		3¼@	3½
Aleppe		3¾@	4
Chinese		— @	—
Coringa		3½@	3¾
Turkey red oil		5½@	15
Vanadiate ammonium	℔ oz.	60 @	75
Zinc dust	℔ lb.	5½@	6

Chipped Dyewoods, Etc.

Barwood	℔ lb.	2 @	2½
Camwood		6 @	7
Fustic		1½@	2
Hypernic		3 @	
Logwood		1½@	1
Red sanders		2¾@	3¼

Extracts.

Archil, double	℔ lb.	8 @	10
concentrated		14 @	18
Barberry, French		22 @	28
Chestnut		2¾@	3
Oak		3 @	3½
Hemlock		3 @	3¾
Fustic, solid		8 @	11
liquid, 51°		6¼@	8
Gall		12 @	15
Indigo		6 @	10
Logwood, solid		6 @	12
liquid, 51°		5 @	10
42°		4 @	6
crystals		10 @	15
Quebracho, solid		5 @	6
51°		3 @	3¼
42°		2¾@	3
Persian berry		9 @	15
Sumac		3 @	6

Comparative Prices.

On May 15, 1902, 1903 and 1904.

Chemicals.	1904.	1903.	1902.
Bleaching powder	$1.25	$1.10	$1.65
Brimstone	21.00	21.00	22.00
Caustic soda, 70 p. c.	1.75	1.70	1.90
Caustic soda, 60 p. c.	1.75	1.70	1.95
Sal soda, Am.	.60	.55	.55
Soda, alkali, 48 p. c.	.82½	.90	.90
Soda, ash, 48 p. c. carb.	1.25	—	—
Soda, ash, 48 p. c. c'st'c.	—	—	—
Soda, nitrate	2.30	2.00	2.15
Cream tartar, crystals	.24½	.24	.18¾
Muriate of potash	1.88	1.83	1.83
Chlorate of potash	.06¾	.07	.07¾
Kainit	9.05	9.30	9.05
Paints.			
White lead in oil	.06	.06¾	.06½
Litharge, Am. pow'd	.05¾	.05½	.04¾
Paris green	.11	.12	.11¼
Orange, mineral	.08	.08¼	.07¾
Ven. red, English	1.25	1.50	1.80
Ven. red, American	.50	.50	.50
Barytes	17.50	17.00	17.00
Whiting, commercial	.45	.48	.40
Drugs.			
Opium	2.72½	3.20	2.82½
Morphine, domestic	2.10	2.00	1.90
Quinine	.27	.26	—
Alcohol	2.47	2.40	2.45
Borax, city	.07¼	.07¼	.07¼
Beans, tonka (Ang.)	.60	.62½	.75
Cubeb XX	.07½	.08	.09¼
Cuttlefish	.15	.19	.20
Glycerine, C. P., drums	.14¼	.14½	.14¼
Oil, castor, city	.09¾	.10	.10¾
Oil, cassia	.75	.67½	.62½
Oil, codliver, Nor	.55	1.20	29.50
Oil, peppermint, tins	3.50	3.15	1.75
Oil, sassafras	.55	.40	.39
Quicksilver	.62	.64½	.64½
Asafoetida	.23	.19	.16
Gum, arabic, sorts	.06	.07	.08½
Camphor, bbls	.64	—	—
Shellac, D. C	.95	—	.36
Senna, Alex. Nat'l	.17	.21	.21
Senega root	—	.85	—
Ipecac	1.30	1.40	2.50
Jalap	.08¾	.09½	.09
Canary seed, Smyrna	.04½	.03½	.02¾
Caraway seed, Dutch	.05	.05	.04½
Mustard seed, Cal., yel.	.03¾	.04¼	.04
Rapeseed, German	.02¾	.02¾	.03½
Oils.			
Cottonseed, prime, S. Y.	.27½	.42½	.46
Olive, Sicily	.49	.54	.52
Cocoanut, Ceylon	.06	.06½	.07½
Lard, prime, city	.57	.79	.81
Linseed, domestic	.42	.44	.66
Menhaden, prime, cde.	.25	.26	—
Sperm, bl'ched, winter	.65	.75	.78
Whale, bl'ched, winter	.48	.48	.48
Oil cake, Western	22.00	23.50	27.00
Spirits, turpentine	.58½	.50	.46½
Dyestuffs.			
Bichromate potash, Am.	.08¼	.08¼	.08¼
Cochineal, Teneriffe, S.	.52	.23	.16
Cutch, bag	.04	.05	.04½
Gambier	.04¾	.06½	.06
Indigo, Bengal, h. gde	.95	.90	.85
Prussiate potash, yel	.14½	.13¾	.14
Starch, corn	2.20	2.20	2.72
Sumac, Sicily, prime	.44	.47	.44

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DRUG MARKET.

NOTE.—Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures. Complete prices current will be found on pages 31, 32 and 33.

Saturday Noon, May 13, 1905.

ADVANCED.	DECLINED.
Alcohol, grain, 3c.	Opium, 2½c.
Quicksilver, 1 c.	Quinine, 1c.
Curacao aloes, ¼c.	Bayberry wax, 5c.
Huanoco coca leaves, 3c.	Chinese cantharides, powdered, 2c.
	Codliver oil, Norwegian, $2.
	American saffron flowers, 15c.
	American refined camphor, 3c.
	Celery seed, ¼c.

Opium.

The downward tendency of the market is again manifested in an openly named lower quotation, $2.85 for cases. The demand is very slight and limited to jobbing parcels, for which up to $2.90 is asked. Powdered is nominally steady at $3.40@3.45, as to test, quantity and seller. Advices from our correspondents in Turkey follows:—

Smyrna, May, 12, 1905.

There have been sales of 43 cases at full prices. The market is firm. Arrivals to date 4,525 cases.

Constantinople, May 13, 1905.

Sales have been made of 6 cases of soft goods at 8s. 4d.; 12 cases of Malatia at 7s. 5d.@7s. 7d., and 14 cases of druggists at 7s. 3d.@7s. 4d. The market continues firm.

We also have the following by mail:—

Sales from April 15 to 21 amounted to 2 cases of rich Yerli at 8s. 4d. f. o. b., for America. Notwithstanding the lack of business, sellers maintain a very firm position. The effect of drought and dry hot winds from the growing districts has further strengthened the optimistic views of sellers, and to-day every one is of opinion that next summer we shall have much higher prices to quote. Arrivals to date are 4,494 cases, against 1,783 at the same period last year.

Quinine.

Cable advices received on Saturday indicated a reduction of 1c. in the price of a well-known German brand, and the American houses reluctantly followed the initiative. This decline establishes the market in first hands at 20c. The change was generally unlooked for, as the situation had seemed to rally somewhat from the depressing influences of last week. The lower bark unit at the recent Amsterdam sale and the dull state of the market here and abroad were undoubtedly the factors which prompted the reduction. Second hands have been considerably upset by the change, and their quotations are quite nominal. There was a sale of Java quinine at Batavia on Wednesday, which resulted in a lower unit than we have any record of since June, 1903. The unit was 16.20 florins, against 16½ florins, which has prevailed for the six previous sales. The record of Java sales during recent years appears in the following table:—

	Florins			
	1905.	1904.	1903.	1902.
January	16½	No sale.	No sale.	17⅝
February	16½	16½	18	20½
March	16½	17.30	20	21½
April	16½	18.30	20	23½
May	16.20	17½	17	21¼
June	...	16½	15	18½
July	...	No sale.	18	15
August	...	16½	No sale.	13
September	...	16½	17.30	17¼
October	...	16.70	19½	16½
November	...	16½	19	16½
December	...	16½	18½	16⅝

The offerings included 4,000 kilos, of which 87 per cent. was sold, or about 130,000 ounces.

Miscellaneous.

ACETONE.—While the demand is of light proportions there is apparently no disposition to shade 17c. for drums under the firm position of the raw material.

ACID, CARBOLIC.—So far as can be learned, the inquiries in this market for round lots of bulk acid for early shipment to Japan have come to naught, holders not being in a position to offer on spot the quantities required. The market retains a sustained tone at 13@14c. for drums and at 19@22c. for bottles.

ACID, CITRIC.—The movement continues disappointingly dull with the backward season, and outside holders show more of an inclination to yield to price shading. We are advised that 34c. is now an acceptable basis for outside lots, but makers fully maintain 35@35½c., as to quantity. Our Messina correspondent writes as follows on citrate of lime:—

Messina, April 17, 1905.

No export business has been transacted during this last fortnight, but several purchases have taken place on spot, with view to keep prices up. In fact, speculators are just bidding £16 10s., while export merchants at 5s. less. As matters stand, it seems there is a better feeling manifsted on the part of domestic manipulators, and holders are keeping quite reserved, not being in a hurry to give away.

On the other hand, we have to report that an active export has been followed during the last month, and buyers abroad say they find themselves in a comfortable supply.

ALCOHOL.—The first change in grain alcohol this year was announced early this week, being an advance to $2.41 net, in sympathy with a higher market in the West. Wood alcohol remains at 70c. for 95 per cent. and at 75c. for 97 per cent.

BAYBERRY WAX.—Some lots in the country are said to be in rather unexpected evidence, and the spot basis has eased off somewhat in consequence, 45c. being now acceptable. Buying interests are still shy at this comparatively high level.

BAY RUM.—Firmer views are generally maintained, in sympathy with a stronger manifestitation in the producing sections, and while some grades of Porto Rico are obtainable at $1.80, quotations for this variety range to $2. For St. Thomas, which is restricted by the duty, $2.35@2.40 is asked.

BEESWAX.—Some crude yellow of fairly good quality is offered at 32c., but the better kinds readily command up to 33½c. Refined yellow is available at 34½@36c.

CANTHARIDES.—Powdered Chinese flies are available at 53c., but in some quarters 55c. remains an inside quotation. Whole Chinese flies continue at 49@52c. Russian flies are offered at $1.20@1.25 for whole, as well as for powdered.

CARNAUBA WAX.—Late tests of the market in Brazil indicate an undiminished strength on the part of holders, and on the basis of quoted figures advances are held to be warranted on spot. Limited quantities are available of Nos. 1 and 2. Hamburg, which controls a large percentage of the recent crop, is now reported to have recovered a slight abatement of firmness. The spot demand has been fairly active for the higher grades, which find favor in the manufacture of shoe dressings. No. 1 is quoted at 48@50c. and No. 2 at 40@42c. Comparatively little interest is manifested in the lower grades, which are in more plentiful supply, but which are apparently well maintained at 31½@33c. for No. 3 and at 32½@34c. for North Country. The high rate of Brazilian exchange has undoubtedly played an important part in leading primary holders to their high level, and the following may be of interest to show the effect of this condition—

On November 29, when the first of the new crop was offered for sale from Brazil, No. 3 wax was selling here at 24½c. at wholesale for invoice lots, and the Brazilian exchange at that time was 12 7-16d., which means that the value of a Brazilian milreis was 12 7-16 English pence. On April 29 the Brazilian exchange stood at 17d., an advance of 36.7 per cent., while the wholesale price of wax in invoice lots was 31c., an advance of only 26.5 per cent.; consequently, the net price to the producer in Brazil to-day, in Brazilian currency, would be 10 per cent. lower than it was when the crop opened on November 29; in other words, although the market has advanced here in New York, 26.5 per cent., the producer in Brazil actually receives 10 per cent. less for his wax. This accounts for the fact that producers in Brazil have been continually prophesying higher prices, and only selling their wax at to-day's prices because of the extreme scarcity of ready money in Brazil, which practically forced them to realize. In fact, most of the last half of the crop was shipped either to this country or to Europe on consignment for account of the producers, as they would not accept the prices offered by importers in this country, and, only after they were convinced by the results of these consignments that they could not obtain more, were sales made at to-day's level.

COCOA BUTTER.—Supplementing his cable advices on the recent sale, our London correspondent writes that 2 lots were sold at 13¼d., 23 lots at 13⅜d. and 75 lots at 13½d., all of 5 cases each, or at an average of rather over 13 7-16d. There is nothing new to report locally, the demand remaining backward, but prices continuing fairly steady at 27@30c. for bulk, as to brand and quantity.

CODLIVER OIL.—Further declines both on spot and for shipment are to be noted. For spot $25 can now be done, while $17 f. o. b. has been the basis for some sales for shipment from Norway. There is very little interest to the market in any position. Newfoundland oil is nominally quoted at $26.

EPSOM SALTS.—Some imported lots

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are available at 85c. in bags, carload lots, but the demand is said to be making quite an impression on spot stocks. The American makers are well sold and maintain bags at $1 and bbls. at $1.10 in carload lots.

FUSEL OIL.—An advance of 5s. per 100 kilos has been reported abroad in crude, but there is no change to note in spot values, crude remaining at $1.05@1.10 and refined at $1.35@1.40.

GLUCOSE.—While the competition between the two leading factors continues unabated, there has been no late change in prices, and 1.51c. is still current for 42 deg., in carlots.

GLYCERINE.—There is nothing of particular interest to note this week, and while the market for crude abroad remains on a relatively low level, it is said to be above the parity to which the keenness of competition has brought local values for C. P. at 12½@12¾c. for bulk, containers extra, and at 13½@13¾c. for cans. Dynamite is lower at 11⅛@11¼c. in car lots at shipping points. Mail advices to a local house state that it is believed that the market for crude in France has reached its lowest point. Our correspondent writes as follows on crude:—

Paris, April 28, 1905.

A good volume of business must be noted this week, but these transactions do not refer to large quantities, as sellers are confident in higher prices, and are offering only the goods with which they are disturbed. Quotations remain:—Saponification, 87 francs; soap lye, 80 france, per 100 kilos, c. and f. New York.

MENTHOL.—The market is apparently sustained at the inside quotation of $1.85 for cases, but there is little inquiry. Our London correspondent cables to-day (Saturday), a lower market there, but the spot basis is believed to be quite a little below the London parity. News has been received that considerable of the land, which was devoted to peppermint culture last year, is being used for rice.

QUICKSILVER.—In consequence of an advance of $1 in flasks, the jobbing basis is now higher at 53@55c.

Balsams.

Under the influence of freer arrivals and a dull market, values for Central American copaiba are not so firmly maintained and some grades are available at 30c. In a number of quarters nothing is in evidence below 31c. and up to 34c. is named for the better kinds. There has been nothing to relieve the scarcity of the Para variety, only 150 kilos, not sufficient for shipment, being reported at a principal shipping port. For Peru, $1 is said to be still possible.

Barks.

Advices from the coast continue to indicate a strengthening market for cascara sagrada, with very little left for shipment, and the cost to lay down here approximately at 7c. There are yet sellers on spot at 6¾c. for last year's bark in a large way. The prices prevailing on the coast last year are not calculated to bring many gatherers into the field, and a further check upon the production may be found in a restriction upon stripping the trees in some localities.

Buckthorn is attracting little attention at present, but there seems to be no abatement of the strength of the market at 6@7c.

Sassafras is slightly easier under new crop arrivals, and clean, sifted bark is available at 12c.

Seasonable inquiries are beginning to be manifested for soap bark, and values are steady at 4¾@5c. for whole and at 6@7c. for cut.

Black haw bark is firmer at 15c. for root and at 7c. for tree.

Beans.

The interest of buyers continues to center chiefly in Mexican beans, and the movement into consuming channels is well up to a seasonable average. There were 19 cases of new whole beans in the recent arrival, aggregating 3,500 lbs. The arrivals of new cut Mexican beans here so far are said to amount to 35,000 lbs. Mail advices on the sale of Bourbon beans in London last week indicated that prices were generally lower by about 1s. per lb. Fair purchases were made for this market. Prices here remain unchanged for all descriptions.

Berries.

One holder has announced a further advance in cubeb berries to 8c. for natural and 9c. for stemless, but 7½@8½c. is still current. There has been quite a movement of late in the berries and with no recent arrivals, local stocks have been materially reduced. Juniper berries continue dull at 2@2¼c., with nothing from primary sources to offer encouragement for improvement.

Essential Oils.

An improved tone prevails for citronella, with the disposal of some comparatively cheap lots. Three drums which were reported to be available slightly below ruling values were taken by a leading holder on spot and are now maintained at 42½c. In a jobbing way 40c. is still named. Late London advices indicate that practically nothing can be offered, and the course of values is decidedly upward.

While bergamot remains rather easy, in sympathy with the Messina market, there is no change to note in quotations, which range from $2.05@2.25, according to brand, quality and seller. Lemon and sweet orange are seemingly well maintained at 57@65c. for the former and at $1.65@1.85 for the latter. We have the following from a Messina correspondent:—

Messina, April 23, 1905.

Since our last report nothing of importance has occurred so far as lemon is concerned. Bergamot is a trifle weaker, and orange perhaps a little sustained. The demand from abroad is dull, and consequently no movement of any importance has taken place. To-day's figures follow:—Lemon, 2s. 3d.@2s. 6d.; bergamot, 8s.@8s. 6d.; orange, 6s. 3d.@6s. 6d. Citrate of lime and concentrated lemon juice remain unchanged without any perceptible demand from abroad.

Neroli is manifesting marked improvement abroad owing to the unfavorable crop conditions for the flowers, and late advices to a local house indicate an advance of $15 per lb., bringing quotations for that particular brand to $55 for petale and $60 for strictly pure. This advance, it was stated, was not due so much to the short crop as it was to the formation of a new syndicate of orange flower growers, who now have a protective association and who control all the orange flowers grown along the Reviera. Prospects were reported to be bad for the distillers in Grasse and Cannes, who would probably have to pay as much as 28c. per kilo for the flowers which they purchased last year at 13c. per kilo. Advices to another dealer here were to the effect that in some quarters it was predicted that pure oil would sell in the centers of production in Southern France at 1,000 francs per kilo.

Otto of rose has also been the subject of firmer advices from Bulgaria, several views agreeing that the crop would not be one-eighth of its normal volume. Cable advices received late in the week indicated an advance from $4 to $4.35 for a standard brand and one from $3.75 to $4 for a second grade. Some oil is yet available on spot at $3.50.

The market for peppermint has been enlivened by the visit of a representative of a large distilling house in the West whose views were said to be too much above those of local dealers to result in any considerable volume of business. It is reported that between 35,000 @40,000 lbs. of oil are held by Western houses. Some sales are said to have been made on the basis of $2.70 from the West. The spot range remains nominally at $2.80@3.00. Bottled oil is offered in one quarter at $3.30.

While most holders maintain clove oil at 65c. in cases and 67½c. in bottles, goods are yet offered 2½c. below this basis.

Flowers.

American saffron flowers have again yielded to the influence of unexpected lots being offered from Mexico, and $1 is now named. One arrival of 47 bales has been received this week and other lots are said to be on the way. It is not believed that these are new crop goods, which are not, as a rule, due until July, but they have occasioned some fear that new flowers may be offered earlier than usual. There are practically two holders on spot, and the competition is most keen between them. Buyers are holding aloof in anticipation of a normal basis. We have treated this market on our editorial page.

With the disposal of the old lots of Roman chamomile flowers, there is nothing apparently available below 22c., and there are but two holders of new goods at this figure.

Mullein flowers are held at $1@1.15, with goods reported to be available in only one quarter.

Gums.

Another break has occurred in American refined camphor prices, this time the decline amounting to 3c. and establishing quotations at 68c. in bbls. and 68½c. in cases. The competition of the Japanese product may be repeated as the disturbing factor. This makes the third sharp reduction in the domestic since early last April, when the market was on a basis of 80@80½c. Some holders of Japanese are said to be still in a position to undersell the American refiners.

The strengthening tendency of Curacao aloes has been maintained this week and with good sales slightly below 4c., values have been firmly established on this level, with the prospects favoring further advances. Advices from the producing districts confirm the reports of a short crop, and importers may not be in a position to enter contracts for at least another month. A recent arrival of 50 boxes was all sold at full market prices.

There has been a falling off in the arrivals of chicle of late, but local stocks are ample for the limited demand. Mexican gum is offered at 36c. in car lots, and Honduras is available at 34c.

Herbs and Leaves.

Truxillo coca leaves are available at 18c., but in some quarters 19@20c. is fully maintained for prime. The Huanoco variety is quoted at an advance to 32@35c., under the influence of a firmer tendency in the primary markets. There have been fairly good arrivals this week, but they are required for manufacturing purposes.

While the tone of the London market remains easy for short buchu leaves, there is no disposition on spot to shade 17c. for prime green, although some less desirable kinds might be had at 16c.

The movement in Alexandria senna is not yet sufficient to establish values on a parity with those of primary sources. Half leaf is available at 9½@11c. and siftings at 5½@6c.

The market is fully sustained at 20 @22c. for grindelia robusta and at 15 @18c. for yerba santa.

Roots.

The offers of new spring-dug golden seal are not definite enough to affect the stability of the spot basis which remains at $1.55@1.60. Mail advices from St. Louis indicate that a few small lots of fairly good quality have been received there, for which $1.35 is asked.

With the approach of warm weather, holders of German dandelion are more eager sellers, and some root is offered at 7c.

New jalap root can be had at 8c., but buyers maintain their confidence in a more favorable figure. Old root commands up to 11c.

There have been more active inquiries for high dried rhubarb and good sales are reported at 20@21c.

The spot stocks of lady slipper are now said to be controlled by one dealer, who maintains 50c.

The lack of sufficient consuming demand checks an advance in ginger that might otherwise be warranted by the firmer tendency abroad. From dock, natural might be had at 6¼c., but 6½c. is asked from store. Bleached is held at 9@10c.

Seeds.

A backward demand on spot and a slight relaxation abroad have combined to render the market for celery seed somewhat easier, and 7¾c. is an acceptable basis in several quarters.

Late cable advices put the cost to lay down caraway seed in excess of 5½c. from Holland. The spot basis is 5½@5¾c., but under a more active demand, a higher level would probably be established.

Our Constantinople correspondent cables to-day (Saturday), an advance of 6d. in canary seed, and reports that the crop is suffering from drought. The competition of cheap South American seed continues to exert a restraining influence on spot values. Sicily is nominally quoted at 5@5¼c., and Smyrna at 4¾@5c. South American is available at 4½c.

The market for fenugreek seed is firmly sustained at the late advance, and 2¾c. is apparently an inside quotation, with many holders refusing to shade 2⅞@3c.

Shellac.

The local market presents little of new interest this week, and while the jobbing demand is fairly good, large business is slow and speculative buying is almost at a standstill. Cable advices received by a local house on Saturday indicated a firmer market in Calcutta, but London was somewhat easier. Our London correspondent cabled T. N. on spot at 142s. 6d. per cwt., against 145s. last Saturday. London futures were reported lower by 6s. On the basis of 142s. 6d. in London, the cost to lay down here is estimated at 31½c., but T. N. is offered on spot at 30c. in bags, and 31c. in cases. The only other change we have to note is in bone dried, which is available at 40c. There has been no arrival since the Liebenfels, but the Bucrania is due on May 22 with about 1,000 packages of assorted marks, of which there are only 300 orange and 150 T. N. The arrivals in London during April aggregated 2,346 cases, against deliveries of 5,468 cases, making a reduction of 3,122 cases.

Spices.

A quiet and generally uninteresting week has prevailed, with few price changes of moment. The demand is along the usual jobbing lines, with little activity in invoice lots or speculative transactions. The reports of a possible import tax on spices seemed to have gained some confidence abroad, but our Washington correspondent advises us that the imposition of such a tax is doubtful, but if one were levied, the revenue would amount to about $2,500,000. Zanzibar cloves are now generally held at 10½@10¾c., while the cost to lay down from London is placed at 11½c. Saigon cassia rolls are quoted at 58c., and the spot supply is said to be controlled by one dealer. Nutmegs are dull and rather easy at 16@16½c. Statistics of Zanzibar cloves of the 1904-5 crop just at hand give the receipts at Zanzibar from July last to April as 167,419 bales, while the shipments to March 1 have been as follows in bales:—Holland, 15,105; London, 34,338; other European markets, 14,866; Bombay and India, 40,579; New York, 18,370; total, 123,258. Mail advices from our Rotterdam correspondent estimate the stocks of black and white pepper on May 1 last in the principal markets as follows, amounts being in tons:—Holland, 2,650; London, 1,200; France, 1,500; Hamburg, 350; Trieste, 450; New York, 500; total, 6,650. The stocks in New York on the corresponding day in recent years were as follows:—1904, 500; 1903, 950; 1902, 670; 1901, 1,300; 1900, 1,000; 1899, 2,350. The total stocks in the principal markets for the same period were:—1904, 8,490; 1903, 8,565; 1902, 12,595; 1901, 14,420; 1900, 18,170; 1899, 22,300. The exports from the Straits during Jan. 1 to April 15 last were 2,900 tons to Europe, and 1,860 tons to this country, a total of 4,760 tons, against 5,200 and 4,250 tons for the corresponding period in 1904 and 1903, respectively. The exports from Tellicherry to Europe and America from January to March during last three years were 1,215 tons in 1905, 2,740 in 1904, and 1,135 in 1903.

(Special Cablegram to the Reporter.)

London Closing Prices.

London, May 13, 1905.

Quinine, spot selling at 9⅝d.; shellac, 142s. 6d. per cwt. Cardamoms and sarsaparilla root are higher, nux vomica, cascara sagrada, dragon's blood, gamboge and menthol are lower.

(Special Cablegram to the Reporter.)

Hamburg Closing Prices.

Hamburg, May 13, 1905.

Camphor, 77c.; lycopodium, 84c.; ergot, 33c.; cantharides, $1.15; codliver oil, $18 per barrel.

TRADE ITEMS.

The Spencer Kellogg Company has purchsed about ten acres of land on the New Jersey side of the Hudson River, opposite Ninetieth street. Plans have already been prepared for a very large linseed oil mill of the most modern construction and arrangement, extensive tankage capacity for both oil and seed, elevator, etc. Work on the property to prepare for building operations will be commenced at once.

Karl Fritzsche, junior partner of Schimmel & Co., of Milltitz, Germany, who arrived here this week, has left the city, with F. E. Watermeyer, of the New York branch, for an extended trip through the West, as far as the Pacific Coast. They will return here by the middle of June, and Mr. Fritzsche will sail for home late in the month. Mr. Fritzsche reports generally favorable crop conditions in Germany, but stated that his father, who had just returned from a trip through France, reported that the crops in Southern France had been seriously damaged by drought.

An Improved Method of Indigo Testing *

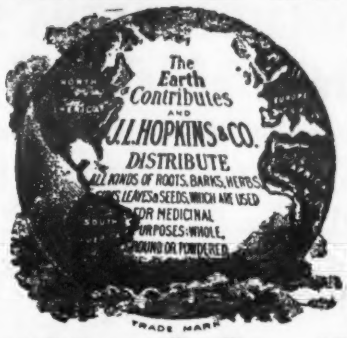
BY J. GROSSMANN, PH.D., F.I.C.

On the 31st of December, 1897, I read before this section a paper on indigo testing by permanganate. Previous to that date, in June of the same year I had published some notes on indigo testing in the Journal of the Society of Dyers and Colorists, in which I brought down the bibliography of the subject from 1885 to the date of my publication, and pointed out that an enumeration of the methods up to 1885 could be found in the paper published by Mr. Christopher Rawson in that year. Since then, a number of methods, partly new, and partly modifications of the old methods have been proposed, abstracts of which may be found in the following numbers of the Journal of the Society of Chemical Industry:—J., 1896, p. 16; J., 1897, p. 938; J., 1898, p. 495; J., 1898, p. 609; J., 1899, p. 251; J., 1899, p. 712; J., 1899, p. 302;

*A paper read at a recent meeting of the Manchester Section of the Society of Chemical Industry.

CRUDE DRUGS

Aconite Root
Areca Nuts
Asafoetida
Arrow Root
Belladonna
Benzoin
Buchu
Cantharides
Cardamom Seed
Chamomile



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J., 1903, p. 967; also E. Knecht, Journ. Soc. Dyers and Colorists, 1905.

Generally speaking, all the methods which have been proposed for the testing of indigo may be divided into five classes.

First—Those methods in which the indigotin is extracted by substances in which it is soluble, and after further purification weighed as pure indigotin.

Second—Methods in which the indigotin is sulphonated and the sulphonic acid determined volumetrically by an oxidizing agent.

Third—Methods in which the indigotin is sulphonated and determined by the addition of substances which reduce it quantitatively to a leuco indigo compound.

Fourth—Methods in which indigo is reduced and separated as leucoindigotin and oxidized to indigotin.

Fifth—Methods in which indigotin is determined by sublimation.

The extraction methods have the great disadvantage that only small quantities can be dealt with for analysis, and that none of them yield the indigotin at once in such a pure state that it could be directly weighed; the same applies to the methods mentioned under 4 and 5. Moreover, the time taken up for an analysis is considerable, and the manipulation required of a delicate nature which calls for considerable and almost continuous attention. The methods which depend upon the sulphonation of indigo and subsequent titration by oxidizing or by reducing agents have therefore been found most suitable for commercial valuation, and I have pointed out in my former communications that of all the methods which have been proposed those worked out by C. Rawson, and published in 1885, are the best and most convenient, and for practical purposes, there has been no better method than the modification proposed by Rawson of salting out the pure sulphoindigotate, and testing it with permanganate. The drawback to that method has been that the salting out requires several hours, the filtration of the sulphindigotate is tedious as it does not readily filter, and some of the sulphindigotate remains in the filtrate solution, and has to be allowed for by a correction which is more or less arbitrary. In a paper published in 1899, C. Rawson proposed an improvement of his method by adding chloride of barium to the diluted solution of the sulphonated indigo for the purpose of mechanically throwing down any impurities. No doubt this method is an improvement as far as the time required for an analysis is effected by it, but is questionable whether it will affect a certain class of impurities in the original indigo which become sulphonated, and are not carried down by the sulphate of baryta.

The method which I wish to lay before you to-night is one which was worked out by me in the year 1891, and which has been used in my laboratory since then, and which I have found very reliable. I have tested thousands of samples by it, and have been on several occasions checked by indigo brokers who have sent me duplicates of samples which I have previously tested for them without my knowing that they were duplicates, and in each case the results were identical to those which they have received from me before. The principle of the method is based on the fact that the impurities in the natural indigo are only soluble as long as the solution is acid. If the solution is neutral, these impurities fall out and are carried down along with the insoluble precipitate which I form in neutralizing the solution; and the way in which I proceed is as follows:—

One grm. of indigo is finely ground with glass powder and mixed with 20 c.c. of strong sulphuric acid of 1.845 sp. gr.. It is heated for an hour at 90° C. It is then transferred into a liter flask containing some water and the flask is filled up to the mark with water. Up to this point I follow Rawson's instructions. I now proceed to my own method, which consists in placing 100 c.c. of this solution in a 500 c.c. flask, and gradually adding a sufficient quantity of pure calcium carbonate, that is about 6 grm. to the solution. The flask is now filled up to the mark and well shaken; after the calcium sulphate and the impurities which it has carried with it have subsided, the liquid is filtered, and 249 c.c. (corresponding to 250 c.c. with an allowance for the space occupied by the precipitate) are measured into a porcelain basin or beaker; a few centimeters of diluted sulphuric acid added, and the solution may be titrated in the usual manner with permanganate of potash.

The solution obtained by treating indigo in this manner and preparing it for titration has the great advantage that it is a pure solution which may be used either for an oxidizing or a reducing test. It may, moreover, be used for a dyeing test or for a colorimetric test. It, therefore, does not depend upon the permanganate method, but may be used as a preliminary preparation for nearly every kind of analytical work proposed for the valuation of indigos, with the exception of those which are based in the extraction of indigotin by solvents, direct reduction, or sublimation. The method has the drawback which all sulphonating methods have of determining the indigo rubine as indigotin; but as a rule, with the exception of one special make of indigo, the quantity of indigo rubine in natural indigos is exceedingly small.

I have not had an opportunity of checking my method on samples of Java indigo containing the yellow coloring matter which Rawson found in them, nor have I been able to determine the accuracy of my method in the case of artificial indigos containing impurities arising from their mode of manufacture, which will be most likely of a different nature to those occurring in natural indigo. I trust that others will take up this line of investigation and ascertain how far my method will apply in these cases.

In view of the extended use which artificial indigo is obtaining, and considering the fact that the sulphonating method both in the case of artificial and natural indigo would give wrong results in such cases where indigo was contaminated with certain aniline colors which can be sulphonated, such as aniline blue, &c., every sample of indigo of which the original source is not authenticated should be qualitatively examined before sulphonating by trying it with alcohol or other solvents which do not act on indigo. But as regards those cases the fault is one which is adherent to all methods which depend upon previous sulphonation and subsequent oxidation and reduction, and is not one which is peculiar to my method.

I can thoroughly recommend my method as being one which is exceedingly quick and gives most concordant results. A test can be made in two hours from the time that the sample has been ground, and as it requires very little manipulation, half a dozen more tests can be conveniently carried on at the same time. The solution of indigotate which is obtained after neutralization with calcium carbonate is of extremely pure tint, and can, therefore, be most conveniently used either for dyeing out tests or for colorimetric determinations.

Characterization and Purification of Alcohols.

(From the French of M. L. Bouveault. Communication to the Academie des Sciences.)

When a somewhat complicated chemical molecule is present in the liquid state, it is uncertain whether there is not a mixture, especially a mixture of isomers. For the same reason the identification of two liquid substances is not certain.

If it is possible by congelation to bring the solution to the crystalline state, it is necessary to engage it in a crystallized combination, easily purifiable, which may at least serve to characterize it. If, in addition, the original liquid can be recovered from the crystallized body, it will be both characterized and purified.

The purification and characterization of alcohol are rendered quite difficult by the fact that they are almost always liquid, and only after much trouble, afford crystallized combination. It is not easy to extract in a pure state an alcohol mixed with different neutral bodies of definite function, and boiling points near its own. It is then necessary to convert the alcohol either into an ether, boiling at a much higher point (benzoate), or by combining it with a bibasic acid anhydride, into an acid ether soluble in alkalies. But for the separation of a mixture of two alcohols of near boiling points, this is a troublesome problem, which no general method now allows of solving.

It is quite exceptional to succeed with etherification. Acids, even those which have higher fusing points, yield in general liquid ethers with alcohols of the fatty series having more than six atoms of carbon. It is only with the greatest difficulty that Marckwald and Mackenze have been able to separate two alcohols contained in commercial amylic alcohol by making use of the acid ethers which they afford with 3-nitrophthalic acid.

Phenyl isocyanate has rendered much service in this way. It has enabled A. W. Hofmann and his pupils, as well as many others, to characterize numerous alcohols. Still, its employment often fails when the phenyl urethanes thus prepared are liquid or too soluble in the various organic solvents.

MM. Erdmann and Hurth replace phenyl isocyanate with diphenylurea chloride and its superior homologues. They obtain disubstituted urethanes, which have rendered service in special cases, but which have, although in a less degree, the same defects as the phenyl urethanes.

I have succeeded in obtaining crystallized derivatives of all the alcohols on which I have experimented, whenever I have been able to prepare the pyrunic ethers. All these pyrunates combine energetically with the semi-carbazide, forming crystallized and unchangeable semi-carbazones, each of which is characteristic of the corresponding alcohol. These semi-carbazones of pyruvates are insoluble in water, slightly soluble in petroleum ether, moderately soluble in the other organic solvents, crystallize very easily and permit of the separation of alcohols. It is sufficient to treat them with alcoholic potash for recovering the corresponding alcohol. At the same time the potassium salt of the semi-carbazone-pyruvic acid is produced. The problem is therefore brought back to the preparation of pyruvates of the different alcohols. With the primary and secondary alcohols, it is sufficient to operate as M. Simon has indicated; that is, by keeping the mixture of alcohol and acid for some hours at 140-150 deg. C., and to distill afterward. The method being of interest, especially for alcohols of heavy molecule, I effected the distillation of the pyruvate in vacuum. I ascertained that certain non-saturated alcohols afford abnormal reactions; in particular, geraniol is completely decomposed. All the tertiary alcohol that I have had in hand have been entirely decomposed by pyruvic acid into water and ethylenic hydrocarbides. This decomposition is an excellent method of preparing the latter.

The semi-carbazone of the pyruvate of tri-methylethylic alcohol (22-dimethylpropanol) melts at 168 deg. C.; that of the caprylic alcohol of castor oil (octanol 2) at 118-119 deg.; that of benzylic alcohol at 176 deg.; that of phenylpropylic alcohol at 143 deg.; that of hexahydrobenzylic alcohol at 182 deg.; that of 26-di-methyloctanol at 124 deg.

(Special Correspondence to the Reporter.)

London Drug Market.

London, April 29, 1905.

Since the resumption of business this week the Mincing Lane markets have produced nothing of much importance, and transactions have been, on the whole, on a limited scale. Japan refined camphor is quieter at barely previous rates. Cascara sagrada is lower to arrive. Ergot of rye is slow but steady. Gallnuts are slow. Gum tragacanth is in fair demand, but prices are barely maintained. Ipecac is neglected. Menthol crystals are firmer. Quinine is flat. Star anise oil is lower. American H. G. H. peppermint oil is higher, and shellac is easier.

Quinine.—The market is very flat, and it is reported that a small business had been done at 5¾d. spot for best German in second hands, but sales having been made openly at 10d., the former cannot be strictly relied upon. The manufacturers' price remains at 11½d. The sale at 9¾d. is now confirmed, the market closing with spot buyers at 9¾d. and sellers at 10d.

Shellac.—The market for spot T. N. orange has been fair, coupled with an easier tendency in prices, sales going steadily on at 145s. per cwt. for fair and at 140@143s. for common to ordinary, with a few lots ofsuperior at 147s. 6d. Fine qualities of orange are still qroted at 162s. 6d.@170s. A. C. garnet is slow at 147s. 6d.@150s. for free and at 137s. 6d.@144s. for blocky, according to quality, and of blocky G. A. L. a little has been sold at 132s.

6d. Buttons are slow at previous rates, and T. N. futures are steady, with sales at 143s. for June as well as for August delivery.

The demand for buchu leaves continues slow, and only a few bales of short round greenish leaves have found buyers at 6d. per lb. Refined Japan camphor has not been quite so active as of late, and prices are less firm at 2s. 11d.@3s. per ½b. for tablets, with an occasional seller at 2s. 10d. Slabs of 2½ lbs. are wanted, everything having been sold and cleared about a fortnight ago. English refined is quoted nominally at 3s. 3d.@3s. 4d. for bells.

Cardamoms are in fair request from second hands at 1@2d. per lb. advance on last drug auction's prices. Cascara sagrada is lower to arrive at about 29s. per cwt., c. i. f., while spot three-year-old bark is unchanged at 37s. Ergot of rye is quiet but steady at 1s. 7d. per lb. for spot Spanish and at 1s. 5d.@1s. 6d. for Russian. Galinuts are unchanged at 55s. per cwt. for China spot, and as regards Aleppo there is nothing doing, blues being quoted at 90s.@92s. 6d. and greens at 75s. per cwt.

Gum arabic remains as previously reported. Gum benzoin is selling in small quantities at £7 5s.@£7 15s. per cwt. for good fair to good second Sumatra. Gum tragacanth has been in fair demand this week, but the larger arrivals are likely to bring prices down, the following quotations being barely maintained:—Firsts at £14@£14 10s. per cwt.; seconds at £13 10s.@£13 15s.; thirds at £11 15s.@£13; fourths at £8 10s.@£11; yellow and pinky at £7@£8 5s., and low to fair ordinary at 50s.@£6 10s.

Ipecac is slow, and small requirements are filled at prices showing no change from those paid at the last drug auctions. Menthol crystals are in fair demand, and 6s. 4½d. has been paid for Kobayashi spot, after 6s. 3d. had been bid and refused. Near at hand is quoted at 6s. 3d. and to arrive at 6s. 1½d., c. i. f. Yazawa is mentioned at 6s. 2d.@6s. 3d. spot, and Suzuki August-September shipment at 5s. 9d., c. i. f.

Star anise oil spot is easier at 4s. 7d. Cassia oil is slow at late rates. Cinnamon oil is unaltered at 9d.@2s. 6d. per oz., according to quality, and leaf oil is quoted at 2d. per oz. Citronella oil is quiet but firm at 1s. 7d. per lb. spot for drums or tins. Peppermint oil is dearer for H. G. H. American at 15s. 3d.@15s. 6d. spot, and quiet but firm for spot dementholized Kobayashi at 4s., while Suzuki spot is held for 3s. 9d.@3s. 11d., according to holders.

Japan wax in good white squares moves slowly at 42s. 6d. per cwt.

(Special Correspondence to the Reporter.)

London Drug Statistics.

London, May 2, 1905.

The following table shows the arrivals and deliveries from docks and warehouses in London during April, together with the stocks of principal drug items on April 30, 1905 and 1904:—

Articles.	Landed in London in April, 1905.	Delivered from dock and warehouses in London in April, 1905	Stock in London, April 30, 1905.	Stock in London, April 30, 1904.
Shellac, orange, cs.	1,043	3,807	21,506	13,738
Garnet	125	394	3,639	5,812
Button	1,178	1,267	5,970	6,922
Totals	2,346	5,468	31,115	26,472
Aloes, pkgs.	37	91	528	734
Camphor	693	435	1,451	592
Cinchona bark	1,923	1,042	7,061	6,281
Cardamoms, cs., etc.	634	638	2,248	2,375
Cochineal, bags	54	39	171	335
Colombo root	25	61	129	459
Cubebs	...	1	682	1,187
Dragons' blood, cs.	26	10	48	82
Gambege	8	10	24	7
Gum, arabic, pkgs.	418	1,009	5,973	8,340
Asafoetida, cs.	80	93	440	270
Benzoin	98	178	1,062	1,394
Myrrh, pkgs.	...	10	53	81
Olibanum	299	297	2,488	1,884
Tragacanth	4,732	1,071	8,414	4,213
Kowrie, tons	162	119	839	1,093
Ipecac, pkgs.	42	137	291	573
Rhubarb, cs.	26	67	115	223
Senna, pkgs.	142	379	2,815	1,930
Sarsaparilla, bls.	29	88	104	281

During April there were landed 51,008 ozs. of quinine, while the deliveries amounted to 23,584 ozs. The stock on April 30 last was 3,267,360 ozs., against 3,336,032 and 3,397,888 ozs. on the corresponding day in 1904 and 1903, respectively.

GOODS ON THE WAY TO THE UNITED STATES.

W. C. S. AMERICA.

TO THE UNITED STATES.

Hughenden (ss), 700 tons nitrate soda.
Vincent, 3,000 tons nitrate soda.
Coya (ss), 3,500 tons nitrate soda.
Capac (ss), 3,800 tons nitrate soda.
Queen Olga (ss), 4,000 tons nitrate soda.
Cuzco (ss), 6,000 tons nitrate soda.
Burgemestir Jacob (ss), 5,000 tons nitrate soda.
Drumgarth (ss), 5,400 tons nitrate soda.
Olaf Kyrre (ss), 4,500 tons nitrate soda.
Anglo Chilean (ss), 5,600 tons nitrate soda.
Mochian (ss), 3,500 tons nitrate soda.
Condor (ss), 3,700 tons nitrate soda.
Tropic (ss), 4,500 tons nitrate soda.
Burn Holme (ss), 4,500 tons nitrate soda.
Thornhill (ss), 4,500 tons nitrate soda.
Britannia (ss), 4,500 tons nitrate soda.
Comet, 4,900 tons nitrate soda.
Brilliant, 6,000 tons nitrate soda.
Ethelbrytha (ss), 4,500 tons nitrate soda.
South Australia (ss), 6,400 tons nitrate soda.
Pretoria (ss), 5,500 tons nitrate soda.
South America (ss), 6,500 tons nitrate soda.
Anglo African (ss). 6,800 tons nitrate soda.
Massapequa (ss), 3,800 tons nitrate soda.
Cambrian King (ss), 5,200 tons nitrate soda.
Cacique (ss), 3,800 tons nitrate soda.
Indian (ss), 5,500 tons nitrate soda.
Celia (ss), 6,500 tons nitrate soda.
Craigellachi (ss), 5,000 tons soda nitrate.

RECORD OF VESSELS.

SAILED.

Port and Name.	W. C. S. America.
Coya (ss)	Due May.
Burgemestir Jacob (ss)	Due May.
Drumgarth	Due May.
Olaf Kyrre (ss)	Due May.
Anglo Chilean (ss)	Due May.
Vincent	Due May.
Capac (ss)	Due May.
Burn Holme (ss)	Due May.
Hughenden (ss)	Due June.
Queen Olga (ss)	Due June.
Mochian (ss)	Due June.
Condor (ss)	Due June.
Cambrian King (ss)	Due June.
Tropic (ss)	Due July.
Thornhill (ss)	Due July.
Ethelbrytha (ss)	Due July.
South Australia (ss)	Due July.
Cacique (ss)	Due July.
Cuzco (ss)	Due August.
Pretoria (ss)	Due August.
South America (ss)	Due August.
Britannia (ss)	Due September.
Anglo African (ss)	Due September.
Indian (ss)	Due September.
Massapequa (ss)	Due October.
Celia (ss)	Due October.
Comet	Due January, 1906.
Brilliant	Due January.
Craigellachi (ss)	Due July.

(Special Correspondence to the Reporter.)

Charleston Fertilizer Market.

Charleston, May 11, 1905.

SULPHATE OF AMMONIA.—The inquiry for this article remains light and the price is the same. The present quotation is $3.15 per hundred pounds, guaranteed minimum 25 per cent. of ammonia, cost and freight at Charleston.

FISH SCRAP.—The market remains very firm, with a heavy demand for futures. The quotations for subsequent delivery from August to December, are:—For acid fish, $2.40 and 35c.; for dried, $2.57½ and 10c. The supply of ground that was on hand has been disposed of at $2.70 and 10c.

TANKAGE.—The market continues firm, and there has not been an advance in price. The existing quotations are:—$2.55 and 10c. per unit of bone phosphate, delivered at Charleston. The price of ground is $2.65 and 10c.

DRIED BLOOD.—A firm feeling continues to exist and there is a good demand for prompt shipment. There is a slight fluctuation in price; the quotation now is $2.67½ per unit of ammonia for future delivery at Charleston.

GARBAGE TANKAGE.—There has been a decline in the price of this article. The present quotation is $2.15, 10c. and 70c.

NITRATE OF SODA.—The market for spot is very firm at unchanged price. It is $2.37½ ex vessel at this port. There has been an advance in the price for futures, the quotation of which is $2.45 per 100 lbs. ex vessel at Charleston, for deliveries from October to January.

PYRITES.—The steamship Rosewood arrived here on the 9th with a cargo from Pomaron, and the steamship David Mainland left Pomaron on May 5 with a cargo. The Dutch steamship Dordrecht is on her way to this port with a cargo from Huelva. Contracts have been made for future shipments. The quotations have not undergone any change. They are $5.75 per ton of 2,240 lbs. for lump and $4.75 per ton for fines, ex vessel at Charleston.

ACID PHOSPHATE.—The movement in this article has been very light recently. The last sale was made at $9 per ton of 2,000 lbs., f. o. b. Charleston. The season for shipping is over and stocks will now be accumulated for the next year's business.

SULPHATE OF POTASH.—There is not any change to report in the condition of this article. The prevailing price is $2.14 per 100 pounds, ex vessel at Charleston, basis 90 per cent. The market continues quiet.

DOUBLE MANURE SALT.—The market is, as formerly, comparatively inactive, and the quotation has not experienced any change. The price is $1.11½ per 100 lbs., ex vessel at Charleston, guaranteed 48 per cent.

MURIATE OF POTASH.—The price of this article remains the same, the existing quotation being $1.90 per 100 lbs., ex vessel at Charleston, basis 80 per cent.

MANURE SALT.—Neither the tone nor the price has undergone any change. The quotation is 20 per cent., 65c. per 100 pounds, ex vessel at Charleston in bulk.

KAINIT.—There is not anything new to report in the status of this commodity. It has been considerable time since a cargo arrived here. The works around Charleston have an adequate supply for present wants. The price of kainit for this year is reported to be $8.25 per ton of 1,016 kilos (2,240 lbs). All potashes are ex vessel at Charleston, foreign invoice, weights and analyses. It is understood that a cargo will be brought to Charleston via Norfolk.

PHOSPHATE ROCK.—The market is quite strong, and though previous sales were made at $3.75 per ton, $4 per ton is now on the cards. There seems to be a scarcity of stock at this time, and the market is hardening. It is quite probable that rock will advance in price to $4.25 to $4.50 before the end of the summer, for the demand is active and the output at this time is very light.

(Special Correspondence to the Reporter.)

Chicago Fertilizer Market.

Chicago, May 11, 1905.

There was a distinct improvement to the trade in fertilizers during the week, but the betterment was confined to the trading in small lots, the demand for big quantities being apparently ended for the season. There was a fairly even distribution of the demand over the south and the middle west, and in some of the eastern states, while Virginia points were liberal buyers. The demand was largely for the 9 and 20 crushed tankage, though other grades were sold to some extent, and there was also a good demand for dried blood, and for bone meal. In point of sales proportioned to the supply, the trade in bone meal is now the liveliest of all the fertilizer trade. There have been no long contracts made during the week, the purchases being mostly for immediate shipment.

DRIED BLOOD.—There was a good demand for all of the blood which was offered, and the prices were firm. The stocks were small and there was no difficulty in disposing of all that was offered. At the present time there is none on the market. The bulk of the sales this week were on a basis of $2.40, Chicago.

CONCENTRATED TANKAGE.—There is none offered. The price is held nominally at $2.20.

HOOF MEAL.—No hoof meal on the market, at this time, the hoofs being utilized for other purposes. The price is quoted nominally at $2.35.

TANKAGE.—The demand for the various grades of this fertilizer has been fair, and the chief irquiry was for the 9 and 20 grade during the week. The stocks are small, and the sales are in moderate lots only. For the 12 and 12 grade there has been a moderate demand at $2.17½ and 10; 11 and 15 ground, has sold at $2.15 and 10; 10 and 20 ground, at $2.10 and 10; 9 and 30 crushed, at $2.05 and 10; 7 and 30 crushed, $16 per ton; 7 and 25 ground, $16.75 per ton and 5 and 40 unground, $13.25 per ton. Garbage tankage is all under contract, and there is none offered before July.

BONE MEAL.—There has been a good trade in this grade of fertilizer, and the supply has been less than the demand. For the raw bone there has been a very marked inquiry, and for the steamed the demand has been all that the sellers could take care of. Raw bone sold at $20 per ton, and there was little offered. For steamed bone the price asked during the week was $17 to $17.50, at which range all of the offerings were quickly sold. The asking price is now $17.50, flat.

CONCENTRATED SHEEP MANURE.—The demand has been good. Sales were made on a basis of $7 per ton, Chicago, for future delivery. The sellers are now asking $7 to $7.25.

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WRITE FOR SAMPLES AND QUOTATIONS

JAMAICA GINGER ROOT

PARKE, DAVIS & CO., New York

INDUSTRIAL SECURITIES.

General trade conditions continue highly satisfactory, although in some lines an unexpected decrease in demand is reported. It is doubtless true, however, that the volume of trade, as a whole, showed no decrease and that business throughout the country continues prosperous, and probably exceeds in volume that of a year ago. The principal transportation companies report an increasing movement of merchandise and the claim is that it is considerably in excess of that at the corresponding period of last year. In the lines of trade represented by the Reporter complaint is still heard of the slow demand for drugs, although some dealers report a slight improvement during the past week. The demand for chemicals has slackened off, especially for prompt delivery, but deliveries on contract have been up to the average. Owing to the early closing of the glass plants the demand from the glass industry has about ceased for the season. The movement in dyestuffs has continued disappointing, but as the conditions in the textile industry are said to be satisfactory dealers look for early improvement. The demand for paints has kept up and indicates increased consumption, the reports being to the effect that the business has exceeded that of last spring. Oils have been in good request, as a whole, though animal and fish oils have been rather quiet. The movement in seed oils has been in excess of that of last year, while for the mineral oils the demand continues exceptionally good for the season. The industrial situation leaves no room for complaint, the reports from every section being to the effect that the principal industries are in a most flourishing condition, with plants fully employed. Increased activity is reported in the metal industry, the demand for the products, both for home consumption and export, showing steady increase. The textile industry is also reported as being entirely satisfactory. The glass works throughout the country are scheduled to close on June 1 for the annual summer vacation, but as stocks are small resumption of operations will probably be earlier than usual, as the demand is active. The labor situation shows no improvement, nor has it become more disturbed. Few new strikes of importance have been reported, but the expressions of discontent have continued and threats to strike have, perhaps, been more frequent, but it is not thought probable that the situation in any important trade will become critical. The strike of the teamsters at Chicago has extended during the past week, more men having been called out, and rioting has continued to such an extent that an appeal has been made to the military for help, but thus far recourse to this has been avoided. Both sides appear as determined as ever and the outlook for an early settlement is not regarded as at all favorable. The great agricultural staples have ruled strong, with wheat and cotton scoring an advance. Wheat opened on Monday at 88⅜c., and soon developed strength, with only moderate variations. The range for the week for July delivery was 88⅜@90⅝c., with the close on Friday at 90c. Corn started the week at 52⅞c., but soon eased off, though there was no decided downward tendency. The range for the week for July delivery was 52⅛@53c., with the close on Friday at 52¼c. Oats held steady at 35c. until Wednesday, since which they have sold at 35½c. Cotton gained in strength as the week advanced, with only moderate variations. The range for the week for July delivery was 7.50 @7.73c., with the close on Friday at 7.67c. Lard gained in strength during the week, although there has been no decided advance. The range for the week at Chicago for July delivery was 7.27½@7.37½c., with the close on Friday at 7.35c. The market for time money was easier, while the supply has been liberal and demand rather light. Rates at the close were 3 per cent. for thirty to sixty days, 3¼@3½ per cent. for ninety days to four months, and 3½@3¾ per cent. for longer periods. Money on call on the Stock Exchange has ranged from 2@3 per cent., with the bulk of the business done at 2½ per cent. The average rate was 2½ per cent. The closing rate on Friday was 2½ per cent. Mercantile paper has been in good supply during the past week, with the demand also good and rates steady. Rates at the close were 3¾@4 per cent. for sixty to ninety days' indorsements, 4@4½ per cent. for choice single names having four to six months to run, and 4¾@5 per cent. for other grades. The price of bar silver advanced early in the week, but weakened later, only to again advance and closed strong on Friday at 57⅝@59⅛c. for commercial bars and at 57⅞@59⅝c. for government assay bars, showing an advance of ⅜c. over the closing prices of last week. Mexican dollars closed at 44¼c. bid and 47¼c. asked. The market for sterling exchange was stronger early in the week, but later steadied and closed quiet and steady on Friday. Rates for actual business at the close were 4.84⅝ for sixty days, 4.86¾ for demand and 4.87⅛ for cables. The supply of grain and cotton bills has been moderate, while the demand was fair. Rates at the close were 4.84@4.85. The Industrials have shown only slight changes, with the exception of Sugar and Lead, both of which have scored an advance, the latter on reports of the acceptance of the merger offer by the committee. Trading has been rather light, but became active in Lead on Friday. There was no news otherwise to affect the Industrials. The general list of securities dealt in on the Stock Exchange broke rather sharply on Monday, followed by recovery, though trading was light and at times decidedly dull. Late in the week the market gained in strength under active trading, but weakened toward the close.

Sugar stock was peculiarly sensitive to trading influences early in the week and was also affected by the course of the general market. The announcement of a considerable reduction in the price of the products of the concern was seized upon to depress the stock, but had little effect. On Friday, on rather liberal bidding, an advance was scored, said to be due to efforts of a clique. The last sale on Friday was at 137.

The fluctuations during the week have been from 131¾@137¾, the lowest Monday and the highest Friday, closing to-day at 136¾ bid.

Cotton Oil stock attracted but little attention, but held quite steady and showed some strength on reports of active trading in the products of the concern. There were no developments. The last sale reported, on Thursday, was at 33.

The fluctuations during the week have been from 32@33, the lowest Wednesday and the highest Thursday, closing to-day at 32½ bid.

Lead stock gained strength daily on continued reports of progress in the merger negotiations, and when later the definite statement was made that the committee in whose hands the merger negotiations had been placed had unanimously approved of the plan submitted by the United Co. the stock advanced rapidly, though later it seemed to dawn on the traders that the committee would not divulge their conclusions to the public before reporting to the directors, and the stock weakened. There continued no end of rumors, however. The last sale on Friday was at 48½.

The fluctuations during the week have been from 43⅝@49½, the lowest Monday and the highest Friday, closing to-day at 48 bid.

Linseed stock was neglected during the greater part of the week, with a full point difference between bids and offers, but when the reports of acceptance of the Lead merger were made the bids were advanced and the stock scored a gain. The only other reports were to the effect that the demand for the principal product of the concern was active. The last sale on Friday was at 19.

The fluctuations during the week have been from 17@19, the lowest Monday and the highest Friday, closing to-day at 18½ bid.

Va.-Car. Chemical stock appeared to be influenced by the course of the general market, though trading was very light. On Friday, however, there was rather active bidding, under which the price advanced. There was no news. The last sale on Friday was at 35¼.

Corn Products stock did not appear to be in much favor and trading was light. There were no reports to affect the stock. The range for the week was 12½@13, with the last sale on Friday at 13.

The fluctuations during the week have been from 32¼@35⅝, the lowest Monday and the highest Friday, closing to-day at 35⅝ bid.

At auction on Wednesday 10 shares of Casein Co. of America preferred were sold at 68.

PETROLEUM MARKET.

(Continued from page 30.)

PETROLEUM CLEARANCES.

Following are the clearances of petroleum from the ports of New York, Philadelphia, Baltimore, Boston and San Francisco, on the dates named. Refined, unless otherwise specified:—

New York.

May 2.
Br str Amatonga, Cape Town, 13,300 cs ref, 250 cs nap
Br str Amatonga, Algoa Bay, 5,340 cs ref, 250 cs nap
Br str Amatonga, Mossel Bay, 6,000 cs ref, 25 cs, 130 drs nap
Br str Amatonga, E London, 200 cs
Br str Byron, Bahia, 19,500 cs
Br str Byron, Rio Janeiro, 16,000 cs
Ger str Graecia, Inagua, 11 cs

May 3.
Br str Nile, Demerara, 1,200 cs
Br str Frankby, New Zealand, 1,154 cs
Br str Celia, Callao, 250 cs
Br str Celia, Payta, 450 cs
Br str Celia, Talcuhuano, 200 cs ref, 25 cs nap
Br str Celia, Corral, 2,000 cs ref, 80 cs nap
Br str Celia, Valparaiso, 500 cs
Br str Celia, Iquique, 3,800 cs
Br str Celia, Eten, 300 cs
Br str Celia, Pascayasmo, 300 cs
Br str Celia, Guayquil, 3,300 cs
Br str Bermudian, Hamilton, 10 bbls
Am str Finance, Colon, 600 cs

May 5.
Br str Naragansett, London, 3,589,350 gls blk ref, 2,000 cs nap
Br str Rossall, Montevideo, 5,000 cs
Br str Rossall, Buenos Aires, 10,000 cs ref, 800 cs 8 drs nap
Br str Cametense, Maranham, 5,350 cs
Br str Cametense, Parahyba, 600 cs
Br str Cametense, Ceara, 1,295 cs
Br str Maraval, Trinidad, 300 cs
Ger str Altai, Kingston, 9,750 gls
Ger str Altai, Montego Bay, 260 cs
Ger str Altai, Pt Antonio, 100 cs
Ger str Altai, Belize, 1,800 gls
Ger str Altai, Jamaica, 100 cs

May 6.
Br str Tynefield, Buenos Aires, 3,000 cs ref, 500 bbls resid
Str Coamo, Pto Rico, 1,000 cs
Am str Zulia, Curacao, 645 cs
Am str Zulia, Maracaibo, 550 cs

May 8.
Am shp E B Sutton, Penang, 61,190 cs ref, 250 drs nap
Nor str Kalfond, Macoris, 100 cs
Nor str Kalfond, Azua, 200 cs

May 9.
Br str Drumgarth, Whampoa, 140,000 cs

May 10.
Br bk Calcium, Canary Is, 29,810 cs

May 11.
Dan bk Sorine, Townsville, 12,702 cs ref, 400 drs nap

Philadelphia.

April 20.
Br str Oxonian, Antwerp, 5,000 gls resid

April 27.
Br str Lucerna, Hull, 1,491,703 gls

May 2.
Dtch str La Flandre, Ghent, 883,559 gls
Br str Bloomfield, Rotterdam, 2,068,787 gls

May 3.
Nor shp Morning Light, Stockholm, 123,013 gls ref, 529 gls crude, 268,354 gls naphtha

May 4.
Ger str Bayonne, Savona, 1,386,855 gls ref, 36,100 gls naphtha

May 5.
Fr bk Queville, Dieppe, 1,340,010 gls crude
Br str Chesapeake, Dublin, 1,800,000 gls
Bk Shetland, Hamilton, 1,500 gls

Galveston.

May 2.
Str Navigator, Nurvitas, 2 bbls crude

Boston.

May 3.
Br str Yarmouth, N S, 1,580 gls

New Orleans.

May 5.
Str Imperator, Bluefields, 412 cs

San Francisco.

April 29.
Str City of Peking, Mexico, 25 cs
Str City of Peking, Guatemala, 3,975 gls, 12 tanks
Str City of Peking, Salvador, 2,720 gls
Str City of Peking, Honduras, 250 gls
Str City of Peking, Costa Rica, 79 gls
Str Falls of Clyde, Hilo, 6,083 gls

April 30.
Str Umatilla, Br Columbia, 110 gls

May 1.
Bk Archer, Honolulu, 807 gls

May 3.
Str Korea, Japan, 210 gls
Str Korea, Hong Kong, 250 gls
Str Korea, China, 260 gls

May 5.
Str Senator, Br Columbia, 1,560 gls

EXPORTS OF PETROLEUM.

Following are the exports of petroleum products from the port of New York (in gallons) during the past week, and since Jan. 1, as also the exports during the corresponding period of last year:—

In the following table are given the closing quotations Friday night. The market review is complete to Saturday's close.

Name.	Stock. Outstanding.	Bonds Outstanding.	Dividends Payable.	Last Dividend.	Bid.	Asked.	Shares Sold This Week.	High and Low, 1904.	High and Low, 1905.
Am. Agric'l Chemical Co.	$17,215,000	.....	Q.—J.	.....	23	25	500	24⅝ 13	20⅛ 20
pref. 6%*	18,163,000	.....	A. &O.	Apr. 1, '05, 3%	..	90	.....	87 72	92 80
Am. Can Co.	41,233,300	.....	.....	Apr. 1, '04, 2½%	11⅛	12⅛	.....	4½ 3½	.. ..
pref. 7%*	41,233,300	.....	Q.—J.	May 20, '05, 1%	70⅜	70⅝	.....	38 31⅞	.. ..
American Chicle Co.	6,000,000	.....	Q.—J.	Jan. 20, '05, 1%	124	127	.....	.. ..	.. ..
pref. 6%*	3,000,000	.....	Monthly.	1%	97	100	.....	.. ..	.. ..
Am. Cotton Oil Co.	20,237,100		{D.	Dec. 31, '04, 1¼%	33¼	33½	1,200	37⅞ 24¼	38 32
pref. 6%	10,198,000	3,000,000	{J.&D.	June 1, '05, 3%.	95	97	100	97 88¾	97 93
Am. Degras Co.	500,000	.....	.....	.....	..	..	.....	.. ..	.. ..
Am. Glue Co.	800,000	.....	M.&N	May 11, '05 2%	..	58¼	.....	.. ..	.. ..
pref. 8%*	1,304,300	.....	F.&A.	Aug. 1, '04, 4%	..	118	.....	.. ..	.. ..
Am. Linseed Co.	16,750,000	.....	.....	.....	18½	19¾	400	20⅝ 6⅜	22¾ 15⅛
pref. 7%	16,750,000	.....	Q.—M.	Sept. 15, '00, 1¾%	43	48	100	42½ 22½	48½ 36
Am. Smelt. & Ref. Co.	50,000,000	.....	{.....	Apr. 15, '05, 1¼%	111⅞	112¼	172,160	82½ 46	123⅞ 79⅜
pref. 7%	50,000,000	973,000	{Q.—J.	Apr. 1, '05, 1¾%	119	120	4,750	115 88⅜	127 111¼
Am. Snuff Co.	11,001,700	.....	Q.—J.	Apr. 1, '05, 2½%	165	180	.....	170 110	183 169½
pref.	12,000,000	.....	Q.—J.	Apr. 1, '05, 1½%	100½	102	360	101¼ 85	102½ 98¾
Am. Soda Fountain Co.	1,250,000	.....	.....	.....	2	4	.....	.. ..	.. ..
pref. 6%*	1,250,000	.....	Q.—J.	Nov. 16, '03, 6%	63	69	.....	.. ..	.. ..
2d pref. 8%*	1,250,000	.....	.....	.....	9	12	.....	.. ..	.. ..
Am. Sugar Refining Co.	45,000,000	.....	Q.—J.	Apr. 3, '05, 1¾%	134¼	134¾	23,200	153 122¼	149¾ 133¼
pref. 7%*	45,000,000	.....	Q.	Apr. 3, '05, 1¾%	132	138	640	141 122	140 133
Am. Tobacco, new pref.	78,689,000	123,900,000	.....	Apr. 1, '05, 1¼%	95¼	95½	7,078	96 85⅞	99⅝ 91⅛
Am. Window Glass	13,000,000	.....	.....	Jan. 20, '04, 1½%	25	..	.....	53¾ 40	.. ..
pref. 7%*	4,000,000	.....	M.&S.	Sept. 20, '03, 3½%	..	..	.....	90⅝ 50	40 40
Casein Co. of Am., 8%*	5,422,000	.....	Q.—F.	.....	4	7	.....	.. ..	.. ..
pref. 8%*	1,000,000	.....	Q.—F.	Nov. 10, '05, 2%	70	..	.....	.. ..	.. ..
Celluloid Co., 6%	5,925,000	.....	Q.—J.	Jan. 1, '05, 1½%	125	..	.....	.. ..	.. ..
Chesebrough Mfg. Co.	500,000	.....	Monthly.	.....	440	480	.....	.. ..	.. ..
Compressed Gas Capsule Co.	13,500,000	.....	.....	.....	..	..	.....	.. ..	.. ..
pref. 8%	1,500,000	.....	.....	.....	..	..	.....	.. ..	.. ..
Continental Tobacco Co.	48,846,100		{.....	Oct. 1, '04, 4%	.....	.....	.....	.....	.....
pref. 7%	48,844,600	1,450,000	{Q.—J.	Oct. 3, '04, 1¾%	133	135	.....	131 101¼	133¼ 128
Con. Stock & Pet. Ex. Mem.	†($1,500)	.....	.....	.....	..	..	.....	.. ..	.. ..
Corn Products Co.	45,215,500	.....	Q.—M.	Feb. 10, '04, 1%	13	13¼	1,260	26¼ 9¾	22¾ 11⅛
pref. 7%*	27,380,700	.....	Q.—J.	April 10, '05, 1%	59⅞	61	955	82¼ 65	70 59
Diamond Match Co.	15,000,000	.....	Q.—F.	Mar. 15, '05, 2½%	132	142	10	141⅝ 127	140 137
Distillers' Securities Corp.	82,478,840	13,110,000	Q.—J.	Apr. 27, '05, 1%	44¼	44¼	17,976	40½ 19½	47½ 34⅞
Dixon Crucible Co.	734,500	.....	Q.—J.	July 1, '04, 3%	370	..	.....	.. ..	.. ..
Fisheries Co.	532,867	500,000	{J.&J.	.....	.....	.....	.....	.....	.....
pref. 7%	2,000,000	.....	{Annual.	Jan. 10, '03, 7%	..	..	.....	.. ..	.. ..
General Chemical Co.	7,410,300	.....	Q.—M.	Dec. 1, '03, 1¼%	55	62	100	60 43	62 56
pref. 6%	10,000,000	.....	Q.—J.	Apr. 1, '05, 1½%	101½	104	200	101⅝ 94	104 101
Glucose Sugar Refining Co.	24,027,300	.....	Q.—M.	Dec. 2, '01, 1%	..	..	.....	.. ..	.. ..
pref. 7%*	13,638,300	.....	Q.—M.	Dec. 2, '01, 1¾%	..	..	.....	.. ..	.. ..
Harrison Bros. Co.	1,000,000		{.....	.....	..	..	.....	.. ..	.. ..
pref.	1,500,000	1,300,000	{Q.—F.	Aug. 15, '01, 1¾%	..	..	.....	.. ..	.. ..
Maritime Ex. Mem.	†($50)	.....	.....	.....	.....	.....	.....	.....	.....
National Lead Co.	14,905,400	.....	.....	Mar. 1, '00, 1%	44⅞	45	42,550	26¼ 14¼	51⅝ 24¼
pref. 7%*	14,904,000	50,000	Q.—M.	Mar. 15, '05, 1¾%	105½	106½	900	98¾ 80¼	111¼ 97⅝
National Licorice Co.	1,000,000	.....	Q.—J.	Jan. 15, '05, 1%	..	..	.....	.. ..	.. ..
pref. 6%*	500,000	.....	Q.—J.	Dec. 31, '04, 1½%	..	..	.....	.. ..	.. ..
National Wall Paper Co.	30,000,000	.....	.....	.....	..	..	.....	.. ..	.. ..
pref. 8%	3,000,000	.....	.....	.....	..	..	.....	.. ..	.. ..
New Jersey Zinc Co.	10,000,000	10,000,000	.....	.....	..	..	.....	.. ..	.. ..
Penn Salt Mfg. Co.	3,000,000	.....	A.&O.	Apr. 15, '04, 6%	.....	.....	.....	.....	.....
Pittsburgh Plate Glass Co.	12,342,600	.....	Q.—J.	Apr. 1, '05, 1¼%	118	..	.....	141 105	118 108½
pref.	150,000	.....	.....	Apr. 1, '05, 12%	..	..	.....	.. ..	.. ..
Planters' Compress Co.	20,000,000	.....	.....	.....	.....	.....	.....	20 9	.. ..
Procter & Gamble Co.	6,000,000	.....	Q.—F.	May 15, '05, 3%	332	332½	.....	.. ..	.. ..
Produce Exchange Membership.	†($110)	.....	Q.—J.	Jan. 14, '05, 2%	198	200	.....	.. ..	.. ..
pref. 8%*	2,250,000	.....	.....	.....	.....	.....	.....	.....	.....
Pure Oil Co.	8,000,000	.....	.....	.....	..	..	.....	.. ..	.. ..
pref. 6%*	2,000,000	.....	.....	.....	..	..	.....	.. ..	.. ..
Quicksilver Mining Co.	5,708,700	.....	.....	.....	1	1½	300	3½ ⅞	1⅜ 1
pref. 7%	4,291,300	.....	.....	July 1, '04, 1½%	2	5	500	7 3½	4¼ 2¼
Royal Baking Powder Co.	10,000,000	.....	.....	.....	115	118	.....	.. 117½	.. ..
pref. 6%*	10,000,000	.....	Q.—J.	Dec. 31, '04, 1½%	100	110½	.....	.. 117½	.. ..
Southern Cotton Oil Co.	1,000,000	.....	J.&D.	June 15, '03, 4%	.....	.....	.....	.....	.....
Standard Oil Co.	97,500,000	.....	Q.—M.	Mar. 15, '05, 15%	617	620	.....	602 621	.. ..
Standard Table Oil Cloth	4,000,000	.....	.....	.....	..	..	.....	.. ..	.. ..
pref. 7%*	4,000,000	.....	.....	.....	..	..	.....	.. ..	.. ..
Stillwell, Bierce & Smith Vaile Co.	1,012,100	300,000	.....	.....	..	..	.....	.. ..	.. ..
U. S. Glass	3,200,000	.....	.....	.....	37	..	.....	.. ..	.. ..
U. S. Leather Co.	62,282,300		{.....	.....	11¾	11⅞	9,100	20¾ 6¼	14⅜ 11
pref. 8%*	62,282,300	5,280,000	{Q.—J.	Apr. 1, '05, 1½%	107¼	108½	300	106½ 75⅝	110 101
U. S. Playing Card Co.	3,000,000	.....	Q.—J.	.....	..	..	.....	.. ..	.. ..
U. S. Printing Co.	3,500,000	.....	A.&M.	.....	..	..	.....	.. ..	.. ..
U. S. Reduction & Refining Co.	5,918,800		{Q.—J.	July 1, '03, 1%	..	..	2,100	.. ..	40¼ 18
pref. 6%	3,945,800	3,000,000	{Q.—J.	Oct. 1, '03, 3½%	..	..	2,500	40¼ 36½	70½ 35
U. S. Rubber Co.	23,000,000	.....	{.....	Apr. 30, '00, 1%	41	41¼	7,270	34½ 10½	45¼ 33¾
pref. 8%*	23,525,500	12,000,000	{Q.—J.	May 17, '05, 1½%	109¾	110	2,800	100 41	118½ 98⅝
Union Tank Co.	1,000,000	.....	.....	.....	.....	.....	.....	.....	.....
Virginia-Carolina Chemical Co.	27,984,400		{Q.—M.	June 1, '05, 1¾%	35¼	35⅝	5,300	44¼ 22⅜	50 32½
pref. 8%*	12,000,000	7,000,000	{Q.—J.	Jan. 16, '05, 2%	106¼	106⅝	1,364	116 97⅜	110½ 103⅞

*Cumulative. †Price of last sale sold.

Refined.

	For week.	Since Jan. 1.	Same time last year.
Adelaide		1,266,240	39,600
Aden		7,000	5,000
Africa, South		534,000	
West Coast		120,000	
Algiers		150,000	38,400
Algoa Bay	53,400	85,150	731,450
Amoy		453,000	
Amsterdam			3,550,000
Angier, f. o.		498,000	3,139,630
Antigua		18,576	18,057
Antofagasta		8,500	13,400
Antwerp		3,242,500	5,457,500
Antonio		1,100	
Assini, W. C. A.			165,000
Asuncion			20,000
Auckland			50,000
Australia		61,880	
Avonmouth		3,800,000	2,750,000
Axim, W. C. A.			350,200
Azua	2,000	2,000	
Azores		64,579	89,072
Bahama		80	
Bahia	195,000	1,033,750	932,730
Banjoewangi, Jv.		910,000	
Barbadoes		148,000	105,650
Barranquilla		24,000	400
Beira		17,500	2,250
Belize	18,000	102,690	50,517
Bermuda		120,037	141,560
Black River		500	
Bluefields		5,000	21,939
Bocas del Toro			35,000
Bombay		687,690	200,000
Bremen		12,500	
Brisbane		731,500	20,000
Buenos Ayres	130,000	2,126,180	2,651,970
Cabedello		136,000	60,000
Cadiz		50,000	
Calcutta		922,000	
Calgera			1,500
Callao	2,500	78,500	189,500
Campeche		5,000	6,300
Canary Islands	298,100	298,100	
Cape Haitira		100	
Cape Town	133,000	1,419,000	968,450
Cartagena		84,144	190,372
Carupano		29,420	18,750
Ceara	12,050	108,870	84,600
Ceiba		1,700	1,000
Chefoo		1,265,120	2,029,380
Chemulpo		1,428,870	
Ciudad Bolivar		23,900	
Colombo		350,000	200,000
Colon	6,000	535,000	498,130
Conakry, W.C.A.		50,000	
Coquimbo		9,600	
Corinto		9,250	
Corn Island			1,000
Corral	20,000	20,000	20,000
Cuba		627,440	536,960
Cumana		1,000	500
Curacao	6,450	49,044	70,413
Delagoa Bay		658,500	719,210
Demerara	12,000	225,317	195,515
Desterre		81,000	150,000
Domenica		12,170	14,510
Dover, f. o.		11,550,000	1,261,105
Durban		140,000	313,800
Dublin		1,600,000	
Dutch Guiana		109,665	180,150
East London	2,000	665,480	700,690
Eten	3,000	12,000	6,000
Falmouth		3,300	
Fiushing, f. o.		30,850,800	33,070,000
Foochow			500,000
Forcados			107,940
Fremantle		1,762,280	1,915,720
French Guiana		59,971	37,520
Frontera			100
Gibraltar		20,000	206,950
Gonaives		200	
Grenada		48,500	65,100
Greytown			19,244
Guadeloupe		55,777	78,580
Guanta		9,000	4,120
Guayaquil	32,000	125,100	106,700
Haiphong		720,680	
Halifax		73,881	90,011
Hamburg		5,010,637	1,375,000
Hankow, China		1,184,000	
Hayti		173,518	276,245
Hiogo		1,522,000	
Hong Kong		7,057,170	4,880,420
Hull			4,000
Inagua	110	110	
Iquique	38,000	351,000	1,000
Iquitos		21,270	25,400
Jacmel		770	
Jamaica	90,000	420,313	403,009
Jeremie		500	
Kobe		750	300,000
Kurrachee		1,700,000	1,171,010
La Guayra		186,651	199,960
Las Palmas		30,000	41,130
Lisbon		1,336,384	1,296,985
Liverpool		4,445	
Livingston		7,713	
London	3,589,350	21,517,350	9,465,000
Macassar		445,000	
Maceio		280,000	374,500
Macoris	1,000	1,250	
Madagascar		200,000	
Madeira			50,000
Malta		1,000	
Manaos		150,650	241,498
Manchester		200	500
Manila		1,409,270	600,000
Maracaibo	5,500	75,135	71,190
Maranham	53,500	188,500	176,756
Martinique		182,656	60,974
Melbourne		88,500	
Mollendo		72,500	2,500
Montego Bay	2,600	9,000	
Montevideo	50,000	978,120	766,780
Mossel Bay	60,000	116,500	21,020
Nassau		32,420	66,142
Newcastle			4,000
Newcastle, N.S.W		200,000	
New Chwang		1,220,140	
New Zealand	11,540	1,486,540	
Oporto			3,000
Oran			30,000
Pacasmayo	3,000	9,000	5,000
Para		807,220	846,509
Parahyba	6,000	28,250	73,500
Payta	4,500	19,600	9,000
Penang	611,900	899,060	2,738,010
Pernambuco		1,159,069	1,207,980
Philippville			48,000
Pirarus			25,990
Pisaqua			10,000
Pisco			4,200
Port Antonio	1,000	1,500	
Port de Bouc		1,167,543	
Port de Paix		2,050	
Port Elizabeth			28,800
Port Limon		15,720	97,958
Port Maria		2,250	
Port Natal		518,800	756,000
Porto Barrios		3,621	
Porto Cabello		130,714	151,252
Porto Cortez		44,488	9,000
Porto Rico	10,000	108,250	
Progreso		3,140	4,500
Puerto Monlit, Chili		30,000	
Punta Arenas		1,000	47,800
Rangoon			1,500,000
Re Union			100,000
Rio Gr. do Sul			271,850
Saigon		667,000	
Rio Janeiro		1,435,500	1,078,800
Rosario		614,800	1,257,000
Rotterdam		28,848,100	15,895,000
Salaverry		16,000	20,000
Sanchez		2,560	
San Andreas		14,000	6,577
San Domingo		270,290	237,779
San Fernando		8,200	3,418
Santa Cruz		40,000	
Santos		1,375,000	1,235,000
Sao Francisco		60,000	
Savanilla		268,023	174,156
Savona		1,250,000	
Shanghai		11,945,780	18,582,410
Singapore		4,587,550	2,054,050
St. Ann's Bay		2,000	
St. Croix		27,102	28,708
St. Johns, N. F.		186,216	163,594
St. Kitts		34,750	42,850
St. Lucia		28,190	22,923
St. Martins		100	1,950
St. Thomas		10,910	13,570
St. Vincent		2,500	3,500
Sourabaya		300,000	
South Shields		1,611,000	5,000
Sunderland			1,530,000
Swatou, China		880,000	
Sydney		300	1,577,050
Taku Bay, China		1,423,300	
Talcahuano	2,000	33,800	5,000
Tamatave			50,000
Tampico		5,970	5,000
Tientsin			700,000
Townsville	127,020	127,020	
Trieste		500	400
Trinidad	3,000	240,440	350,205
Truxillo		4,070	4,474
Tsingtau		480,000	
Turks Island		4,736	4,785
Valparaiso	5,000	1,716,500	1,825,800
Venice		1,400,000	
Vera Cruz		4,000	20,700
Victoria		100,000	8,000
Wellington			517,240
Whampoa	1,400,000	2,660,000	
Yokohama		2,948,900	4,252,340
Zanzibar		255,000	174,070
Totals	7,010,520	192,565,893	148,513,198

Crude.

Algoa Bay		15,555	
Buenos Ayres		16,500	
Cartagena		2,000	
Ciudad Bolivar		315	
Cuba		270,531	324,373
Demerara		254	
Frontera		103	
Havana		200,000	160,900
Hayti		138	
La Guayra		10,253	
Manzanilla		500	
Marseilles			136,395
Martinique		644	
Melbourne		5,003	
Para			52
Port Limon			606
Tampico		100,000	
Totals		621,693	461,589

Naphtha.

Adelaide		6,720	480
Algiers		34,500	
Algoa Bay	2,500	21,460	9,850
Anjier, f. o.		4,750	
Antofagasta			300
Arica		100	
Barbadoes			150
Belize		95	
Bermuda			6,928
Bluefields		500	2,625
Bocas del Toro			9,587
Bombay		19,200	15,000
Brisbane		14,500	
Buenos Ayres	9,600	150,808	51,284
Calcutta		5,000	10,000
Caldera		2,000	1,000
Callao			200
Cape Town	2,500	124,000	15,217
Cartagena		3,095	252
Carupano			20
Cette			344,592
Chemulpo		35,000	
Ciudad Bolivar		98	
Coquimbo		1,500	2,500
Colon		4,612	
Corral	800	1,800	
Cuba		9,470	13,062
Curacao		1,948	191
Delagoa Bay		225,990	37,800
Demerara		60	
Desterro			142
Domenica		50	
Dunkirk		183,813	
Durban		15,000	490
East London		2,000	2,000
Flushing, f. o.		25,000	
Fremantle		12,400	18,200
French Guiana		150	
Furt Blaye			894,012
Gibraltar		25,000	
Guadeloupe			717
Guayaquil		1,200	625
Hayti		3,714	105
Iquique		1,000	
Jamaica		1,653	1,305
Kurrachee			25,000
La Guayra		200	
Liverpool	604,730	374,752	
London	20,000	1,219,500	
Maceio			475
Malta		3,300	400
Manaos		94	148
Manila		600,000	26,000
Maranham		243	153
Marseilles			135,754
Melbourne		32,360	
Mollendo		500	500
Mossel Bay	30,250	30,250	
Montevideo		3,275	23,612
New Zealand		605,000	
Oran			3,000
Para		240	
Penang	50,000	50,000	20
Pernambuco		200	500
Portishead		460,600	
Port Limon			240
Port Natal		8,500	5,930
Porto Cortez		2,950	
Punta Arenas		400	
Rio Grande		400	
Rio Janeiro		1,450	1,675
Rosario		990	925
Rouen		243,765	1,552,700
San Domingo		380	
Santos		345	700
Savanilla			2,207
Savona		52,250	
Shanghai			15,000
Singapore		40,000	
St. John			5,185
St. Lucia		50	
St. Thomas			30
Sydney		41,600	1,000
Talcahuano	250	250	
Tampico		475	2,085
Tangier			48
Townsville	80,000	80,000	
Trinidad		200	
Valparaiso		12,250	3,700
Venice		38,000	
Wellington			4,800
Totals	195,900	5,072,733	3,625,618

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For the Week Ending May 12, 1905

ACID, BENZOIC—3 cks, 818 lbs, Hensel, Bruckman & L, Patricia, Hamburg
46 cks, 10,143 lbs, Kuttroff, Pickhardt & Co, Ryndam, Rotterdam
20 cks, H A Metz & Co, Ryndam, Rdam
BORIC—1 bbl, 578 lbs, Merck & Co, Lugano, Hamburg
CARBOLIC—21 dms, Schoellkopf, H & H CO. Mesaba, London
OXALIC—25 cks, 23,456 lbs, Kuttroff, Pickhardt & Co, Patricia, Hamburg
50 cks, Roessler & H Chem Co, Hellig Olav, Christiania
PHOS—15 cs, 2,019 lbs, Roessler & H Chem Co, Lugano, Hamburg
ALIZARINE—28 pkgs, Farb of Elberfeld Co. Zeeland, Antwerp.
34 cks, 11,665 lbs, Kuttroff, Pickhardt & Co, Zeeland, Antwerp
63 cks, 23,680 lbs, Kuttroff, Pickhardt & Co, Ryndam, Rotterdam
27 cks, H A Metz & Co, Ryndam, Rdam
AMMONIA, MURI—30 cks, 32,657 lbs, J C Wiarda & Co, Idaho, Hull
95 cks, Wing & Evans, Victorian, Lpool
10 cks, Schoellkopf, H & H Co, Mesaba, London
SAL—10 cks, 6,364 lbs, C de P Field, Kansas City, Bristol
ANILINE COLORS—28 cks, F Richard, Zeeland, Antwerp
20 bbls, Heller & Merz Co, Zeeland, Ant
5 cks, H A Metz & Co, Zeeland, Antwerp
91 cks, Farb of Elberfeld, Zeeland, Ant
191 pkgs, 56,856 lbs, Kuttroff, Pickhardt & Co, Zeeland, Antwerp
124 pkgs, 48 lbs, A Mason, Zeeland, Ant
36 bbls, 1 cs, Geigy Aniline & Ex Co, Zeeland, Antwerp
149 pkgs, Hensel, B & L, Ryndam, Rdam
4 cks, 194 lbs, Kuttroff, Pickhardt & Co, Ryndam, Rotterdam
182 cks, H A Metz & Co, Ryndam, Rdam
148 cks, Cassella Chem Co, Ryndam, Rdam
2 bbls, Heller & Merz Co, Ryndam, Rdam
58 pkgs, Farb of Elberfeld Co, Ryndam, Rdam
31 pkgs, Read, Holliday & Sons, Bovic, Liverpool
CED—29 bgs, J L Hopkins & Co, Cedric, Liverpool
5 bgs, J L Hopkins & Co, Pretoria, Hbg
ANTIMONY, SALT—20 cks, 12,848 lbs, F Bredt & Co, Patricia, Hamburg
ARCHIL—5 cks, Read Holliday & Sons, Bovic, Liverpool
ARGOLS—20 cks, 22,440 lbs, C Pfizer & Co, Liguria, Naples
575 pkgs, 310,765 lbs, Tartar Chemical Co, Fricka, Bordeaux
279 bgs, 52,550 lbs, Tartar Chemical Co, Celtic, Liverpool
50 cks, 55,437 lbs, C Pfizer & Co, Neustria, Marseilles
381 pkgs, 88,127 lbs, Tartar Chemical Co, Citta di Milano, Genoa
248 cks, 102,777 lbs, Tartar Chemical Co, Neustria, Marseilles
ARSENIC—100 cks, 22,000 lbs, McKesson & Robbins, Texas, Stettin
100 cks, 22,046 lbs, O'Hann & Bro, Texas, Stettin
44 kegs, S Jordan & Co, Lugano, Hamburg
BALSAM—32 cs, J A Pauli & Co, Valdivia, Porto Colombia
6 cs, A Held Valdivia, Porto Colombia
92 cs, 8,426 lbs, Kunhardt & Co, Zulia, Maracaibo
COP—15 cs, 1,370 lbs, Suzarte & Whitney, Zulia, Maracaibo
BARIUM, CHLO—83 cks, 92,991 lbs, Gabriel & Schail, Lugano, Hamburg
BARYTES—35 cks, Gabriel & Schail, Ryndam, Rotterdam
BISMUTH—4 cs, 1,122 lbs, C Pfizer & Co, St Paul, London
8 cs, Malinckrodt Chem Co, St Paul, London
BLANC FIXE—10 cks, 4,716 lbs, Kuttroff, Pickhardt & Co, Patricia, Hamburg
BLEACHING POWDER—140 cks, 185,920 lbs, J L & D S Riker, Kansas City, Bristol
110 bbls, 99,487 lbs, F A Reichard, Zeeland, Antwerp
BRISTLES—34 pkgs, Wells Fargo & Co, Campania, Liverpool
20 cs, 2,666 lbs, J A Cattus, Satsuma, Shanghai
BUCHU—3 bls, 1,080 lbs, Peek & Velsor, St Paul, London
22 bls, P E Anderson & Co, St Paul, London
20 bls, 5,080 lbs, F B Ross & Co, St Paul, London
CAMPHOR—67 tubs, 14,870 lbs, H J Baker & Bro, Coastwise, Portland, Ore
20 cs, H J Baker & Bro, Lugano, Hamburg
REFINED—11 cs, Schering & Glatz, Patricia, Hamburg
CANTHARIDES—1 cs, J L Hopkins & Co, Pretoria, Hamburg
CASSIA—15 bls, Winter & Smillie, Ras Issa, Singapore
500 bls, F H Leggett & Co, Acme, Hong Kong
1,030 bls, Geo Hamilton, Ras Issa, Hong Kong
1,000 bls, Austin, Nichols & Co, Acme, Kobe
CELERY SEED—50 bls, 11,000 lbs, Parke, Davis & Co, Celtic, Liverpool
CHALK—600 tons, J D McGlincey & Co, Texas, Copenhagen
2,370 tons, J F Whitney & Co, County of Kinross, Calais
PRECIP—45 pkgs, McKesson & Robbins, Celtic, Liverpool
CHEMICAL COMP—2 bbls, Merck & Co, Lugano, Hamburg
6 bbls, National Enameling Co, Ryndam, Rotterdam
PREP—1 cs, C W Leavitt & Co, Patricia, Hamburg
32 cs, Hensel, B & L, Patricia, Hamburg
31 cs, Schering & Glatz, Patricia, Hamburg
3 cs, Farb of Elberfeld Co, Zeeland, Antwerp
4 cs, H A Metz & Co, Ryndam, Rotterdam
9 cs, C Helmuth, Ryndam, Rotterdam
SALTS—15 cs, Lehn & Fink, Pretoria, Hamburg
CHINA CLAY—388 cks, 194 tons, J Knight & Co, Georgic, Liverpool
CHREMNITZ, WHITE—5 pkgs, 992 lbs, C Helmuth, Ryndam, Rotterdam
CHROME, COLOR—15 cks, G Siegel & Co, Ryndam, Rotterdam
CLOVES—700 bls, 45,339 lbs, Smith, Mackenzie & Co, Lomtardia, Genoa
100 bls, 14,753 lbs, J H Recknagel & Son Massilia, Marseilles
COAL TAR, PREP—1 cs, Roessler & H Chem Co, Teutonic, Liverpool
20 cks, 6,700 lbs, Kuttroff, Pickhardt & Co Zeeland, Antwerp
6 cks, Hensel B & L, Ryndam, Rotterdam
5 cks, Kuttroff, Pickhardt & Co, Ryndam, Rotterdam
PROD.—1 cs, Hensel B & L, Patricia, Hamburg
COBALT, OXIDE—5 cs, 500 lbs, Roessler & H Chem Co, Kansas City, Bristol
COCA LEAVES—44 bls, 3,020 lbs, W R Grace & Co, Advance, Colon
COCOA BUTTER—100 bls, 22,046 lbs, Habicht, Braun & Co, Patricia, Hamburg
COLCOTHAR—27 pkgs, Hemingway & Co, Mesabia, London
COLOCYNTH—10 bls, 2,248 lbs, Peek & Velsor Celtic, Liverpool
COLORS—3 cs, B F Drakenfeld & Co, Teutonic, Liverpool
2 cs, A Sartorius & Co, Teutonic, Liverpool
25 drs, Holzafel's Am Comp Co, Georgic, Liverpool
19 cks, 4,428 lbs, Kuttroff, Pickhart & Co, Patricia, Hamburg
10 cks, J Lee Smith & Co, Ryndam, Rotterdam
10 cks, P Uhlich & Co, Ryndam, Rotterdam
15 cks, Rooney Spence, Zeeland, Antwerp
5 kgs, H Kohnstamm & Co, Zeeland, Antwerp
30 pkgs, G Seigel & Co, Ryndam, Rotterdam
CORKS—25 bls, 1,386 lbs, Wildman & Terhune, Mongolian, Glasgow
74 bls, 8,813 lbs, W J Farrell, Zeeland, Antwerp
CORKWOOD—1,498 bls, Armstrong Cork Co., Mongolian, Glasgow
75 bls, Gudewell & Bucknall, Baltic, Liverpool
67 bls, Gudewell & Bucknall, Patricia, Hamburg
CRESOL—20 cs, Schering & Glatz, Patricia, Hamburg
CUMMIN SEED—10 bls, McKesson & Robbins, Pr Irene, Genoa
CUTCH—300 bgs, 33,600 lbs, O S Janney & Co, Satsuma, Singapore
320 bgs, 38,432 lbs, A Klipstein & Co, Ras Issa, Singapore
DEXTRINE—100 bgs, 21,715 lbs, C Morningstar & Co, Texas, Stettin
200 bgs, 43,320 lbs, Arabol Mfg Co, Texas, Stettin
DILL SEED—32 bgs, 4,480 lbs, Parke, Davis & Co, Liguria, Naples
DRUGS—15 bgs, J L Hopkins & Co, St Paul, London
10 bls, J L Hopkins & Co, Pretoria, Hamburg
61 bls, Elmer & Amend, Zeeland, Antwerp
DYEWOOD EXT—5 bbls, 2,152 lbs, Geigy Aniline & Ext Co, Zeeland, Antwerp
FLORESSENSE—2 cs, Ungerer & Co, Neustria, Marseilles
FULLER'S EARTH—200 bgs, 20 tons, L A Saloman & Bro, Kansas City, Bristol
FUSTIC—10 tons, O C Kanzow, Valdivia, Pt au Prince
87,560 lbs, Graham Hinkley, Esperanza, Vera Cruz
155,000 lbs, Suzarte & Whitney, Zulia, Maracaibo
GAMBIER—1,014 bls, 222,776 lbs, J. H. Recknagel & Son, Ras Issa, Shanghai
521 bls, 112,000 lbs, R Crooks & Co, Ras Issa, Shanghai
GINGER—420 bgs, 45,384 lbs, D R James & Bro, Patricia, Hamburg
7 pkgs, 988 lbs, Gillespie Bros & Co, Altai, Kingston
228 bgs, 26,158 lbs, Frame & Co, Georgic, Liverpool
760 bgs, 76,621 lbs, L German & Co, Patricia, Hamburg
100 bgs, A S Lascelles & Co, Altai, Kingston
71 bgs, Parke, Davis & Co, Altai, Kingston
26 bgs, 3,203 lbs, C Wessels & Bro, Altai Kingston
195 bgs, J Clark & Co, Georgic, Liverpool
GLASS, CYLINDER—3 cs, 1,280 ft, Zahn & Bowley Co, Ryndam, Rotterdam
9 cs, 4,390 ft, Bendit, Drey & Co, Ryndam Rotterdam
18 cs, 9,645 ft, Semon, Bache & Co, Ryndam, Rotterdam
PLATE—5 cs, Semon, Bache & Co, Zeeland Antwerp
WINDOW—14 cs, Semon, Bache & Co, Celtic Liverpool
GLUE—100 bgs, 11,023 lbs, S Isaacs & Co Patricia, Hamburg
38 cks, 40,035 lbs, Booth & Co, Idaho, Hull
GLYCERINE—20 dms, 21,880 lbs, C J Schelling & Son, Cretic, Venice
90 dms, 98,988 lbs, Grasselli Chemical Co. Athalia, Bari
85 dms, 91,863 lbs, Marx & Rawolle Georgic, Liverpool
165 dms, 34,980 lbs, Alpers & Mott, Neustria Marseilles
110 dms, 126,355 lbs, R F Downing & Co Neustria, Marseilles
GREASE—WOOL—100 cks, 37,015 lbs, A Klipstein & Co, Idaho, Hull
500 cks, 186,992 lbs, Swan & Finch Co, Barbarossa, Bremen
GUM, ARABIC—105 bls, Parke, Davis & Co Satsuma, Suez
184 bls, Thurston & Bradich, Satsuma, Suez
ASAFOETIDA—31 cs, 10,518 lbs, Parke, Davis & Co, Minnetonka, London
CHICLE—8 bls, 1,543 lbs, Harburger & Stock, Esperanza, Fontera
2 bgs, 311 lbs, Graham Hinkley, Esperanza, Fontera
COPAL—252 cs, 49,174 lbs, Paterson, Boardman & Co, Ras Issa, Singapore
650 cs, 131,800 lbs, L C Gillespie & Son, Ryndam, Rotterdam
850 cs, P Brauss & Co, Satsuma,, Singapore
DAMAR—195 pkgs, A Mason, St Paul, Ldon
450 cs, L C Gillespie & Son, Ryndam, Rdam
250 cs, L C Gillespie & Son, Celtic, Lpool
50 cs, R Brauss & Co, Satsuma, Singapore
100 cs, L C Gillespie & Co, Celtic, Lpool
MASTIC—15 cs, 13,948 lbs, McKesson & Robbins, Teutonic, Liverpool
OLIBANUM—160 cs, 44,800 lbs, Parke, Davis & Co, Idaho, Hull
20 cs, Lehn & Fink, Minneapolis, London
SENEGAL—10 bls, 2,222 lbs, Parke, Davis & Co, St. Paul, London
TRAG—116 pkgs, 16,582 lbs, Parke, Davis & Co, St Paul, London
73 cs, 12,377 lbs, Parke, Davis & Co, Minnetonka, London
10 cs, 2,737 lbs, D E Green & Co, Campania, Liverpool
20 cs, David E Green & Co, New York, London
6 cs, Thurston & Braidich, New York, Ldon
56 bgs, Thurston & Braidich, New York, London
INDIGO—10 cks, 4,611 lbs, Kuttroff, Pickhardt & Co, Ryndam, Rotterdam
50 cks, H A Metz & Co, Ryndam, Rdam
ASST—19 cks, 33,034 lbs, H A Metz & Co, Texas Christiania
AUXILLARY—33 pkgs, 56,397 lbs, H A Metz & Co, Hellig Olav, Copenhagen
14 pkgs, 24,151 lbs, A Klipstein & Co, Texas, Copenhagen
CARMINE—2 cks, 6,720 lbs, Kuttroff, P & Co, Zeeland, Antwerp
8 cks, 800 lbs, Kuttroff, P & Co, Ryndam, Rotterdam
EXT—5 cks, 2,500 lbs, Kuttroff, Pickhardt & Co, Zeeland, Antwerp
5 cks, 2,000 lbs, Kuttroff, Pickhardt & Co, Zeeland, Antwerp
IODINE—20 cs, C Rockhill, Satsuma, Shanghai
92 kegs, 10,221 lbs, Watjen, Toel & Co, Finance, Colon
IPECAC—6 bls, 469 lbs, Stallman & Fulton Co, Mesaba, London
IRON OXIDE—11 bbls, Hemingway & Co, Mesaba, London
JALAP—16 bgs, 2,915 lbs, Graham, Hinkley & Co, Esperanza, Vera Cruz
16 bgs, 2,816 lbs, E N Tibballs & Co, Esperanza, Vera Cruz
LANOLIN—50 cs, 5,000 lbs, V Koechl & Co Lugano, Hamburg
LEAD NITRATE—60 cks, 33,600 lbs, Jas Lee & Co, Campania, Liverpool
LICORICE ROOT—40 bls, J L Hopkins & Co. Bovic, Liverpool
LIME CARB—25 cks, Schoellkopf, H & H Co Georgic, Liverpool
LONDON PURPLE—14 bbls, Hemingway & Co, Mesaba, London
MACE—50 cs, Winter & Smillie, Ras Issa, Singapore
MANGANESE BORATE—5 cks, 1,102 lbs, Strohmeyer & Arpe Co, Patricia, Hburg
OXIDE—22 cks, 4,666 lbs, J Lee & Co. Mongolian, Glasgow
MEDICAL BARK—1 bl, Fitzsimmons, Gleeson & Co, Patricia, Hamburg
FLOWERS—23 bls, 2,758 lbs, Fitzsimmons, Gleeson & Co, Patricia, Hamburg
1 bl, McKesson & Robbins, Pr Irene, Genoa
HERBS—5 bls, 1,137 lbs, Peek & Velsor, Patricia, Hamburg
18 bls, 3,335 lbs. Parke, Davis & Co. Celtic, Liverpool
5 bls, Lehn & Fink, Pretoria, Hamburg
4 bls, J L Hopkins & Co, Blucher, Hamburg
LEAVES—48 bls, 11,154 lbs, Fitzsimmons, Gleeson Co, Celtic, Liverpool
3 cs, 1,270 lbs, Stallman & Fulton Co. Mesaba, London
5 bls, 403 lbs. McKesson & Robbins, Pr Irene, Genoa
7 bls, J L Hopkins & Co, Mesaba, London
PREP—61 cs, E Fougera & Co, La Lorraine, Havre
32 cs, Ungerer & Co, Neustria, Marseilles
45 cs, Farb of Elberfeld Co, Zeeland, Antwp
SEEDS—34 bls, Fitzsimmons, Gleeson & Co. Pr Irene, Genoa
42 bls, J L Hopkins & Co, Christiana, Cpgn
10 bls, J L Hopkins & Co, Celtic, Liverpool
4 cs, J L Hopkins & Co, Mesaba, London
WATER—150 demj, Dodge & Olcott, Neustria, Marseilles
MICA—5 cs, 715 lbs. A O Schoonmaker, St Paul, London
MOSS—1 bg, 25 lbs, McKesson & Robbins, Pr Irene, Genoa
MUSK, ARTIFICIAL—2 cs, Euler & Robeson, La Lorraine, Havre
NAPHTHALINE—5 cks, H A Metz & Co, Ryndam, Rotterdam
4 cks, Fuerst Bros & Co, Texas, Stettin
97 cs, Schoellkopf, H & H Co, Mesaba, Lon
NUTMEGS—138 cs, Winter & Smillie, Ras Issa, Singapore
100 cs, J Kissock & Co, Ras Issa, Singapore
150 cs, J Kissock & Co, Minnetonka, London
86 cs, J Kissock & Co, Ryndam, Rdam
50 cs, 3,333 lbs, Elmenhorst & Co, Ras Issa, Penang
OCHER—165 cks, 123,211 lbs, F A Reichard, Neustria, Marseilles
OIL, ALMOND—5 cs, 500 lbs, T H Grossmith, Neustria, Marseilles
6 cs, Lehn & Fink, Konig Albert, Genoa
ANISEED—20 cs, Geo Luerders & Co, Pr Irene, Genoa
BERGAMOT—5 cs, Lehn & Fink, Italia, Messina
CASSIA—50 cs, Dodge & Olcott, Ras Issa, Hong Kong
CINNAMON—1 cs, Ungerer & Co, Neustria, Marseilles
COCOANUT—73 pkgs, 112,000 lbs, R Crooks & Co, Barbarossa, Bremen
CODLIVER—25 bbls, 750 gals, Schoellkopf, H & H Co, Hellig Olav, Christiana
25 bbls, 750 gals, Parke, Davis & Co, Hellig Olav, Christiana
10 bbls, 300 gals, D E Green & Co, Rosalind, St Johns
ESS'L—20 pkgs, 2,856 lbs, Fritzsche Bros, Patricia, Hamburg
4 cs, Ungerer & Co, Neustria, Marseilles
61 cs, Euler & Robeson, Neustria, Marseilles
2 cs, Geo Luerders & Co, Pr Irene, Genoa
2 cs, Ungerer & Co, Neustria, Marseilles
1 cs, Lehn & Fink, Konig Albert, Messina
5 cs, Dodge & Olcott, Neustria, Marseilles
FUSEL—54 cks, 54,251 lbs, Maas & Waldstein, Idaho, Hull
96 cks, 45,507 lbs, T Hofacker, Idaho, Hull
94 cks, 58,506 lbs, Schoellkopf, H & H Co, Idaho, Hull
18 cks, 13,433 lbs, Knauth, N & K, Idaho, Hull
HAARLEM—50 cs, 500 gals, Parke, Davis & Co, Ryndam, Rotterdam
50 cs, 4,500 lbs, Stallman & Fulton Co, Ryndam, Rotterdam
LEMON—25 cs, 935 lbs. Habicht, Braun & Co, Nap Prince, Genoa
12 cs, Lehn & Fink, Italia, Messina
OLIVE—250 bbls, 12,462 gals, Geisenheimer & Co, Athalie, Malaga
200 bbls, 9,000 gals, Adler & Hirsh, Athalie, Malaga
100 bbls, 5,192 gals, Stallman & Fulton Co, Athalie, Malaga
275 bbls, 14,645 gals, Swan & Finch Co, Athalie, Malaga
50 bbls, 2,734 gals, W W Thomas & Co, Athalie, Malaga
50 bbls, F Bredt & Co, Athalie, Malaga
100 bbls, Oil Seeds Co, Athalie, Malaga
NUT—5 bbls, 931 lbs, McKesson & Robbins, Pr Irene, Genoa
RAPESEED—114 bbls, 5,046 gals, Haebler & Co, Texas, Stettin
10 bbls, 323 gals, Oil Seeds Co, Idaho, Hull
ROSE—1 cs, Dodge & Olcott, Campania, Liverpool
14 cs, 7,000 ozs, Shipkoff & Co, La Lorraine, Havre
8 cs, 94 lbs. E H Burr, La Lorraine, Havre
1 cs, Ungerer & Co, Kaiser Wm II, Bremen
SESAME—25 bbls, J B Horner, Neustria, Marseilles
10 bbls, McKesson & Robbins, Pr Irene, Genoa
SOD—65 cks, 25,725 lbs, O Hann & Bro, Patricia, Hamburg
VETIVERT—1 cs, Ungerer & Co, Neustria, Marseilles
WOOD—309 cks, Paterson, Boardman & Co Satsuma, Hankow
100 cks, A A Stilwell, Satsuma, Hankow
OPIUM—10 cs, 1,314 lbs, McKesson & Robbins, St Paul, London
3 cs, 408 lbs, Parke, Davis & Co, Minnetonka, London
1 cs, J L Hopkins & Co, Minneapolis, London
ORANGE WATER—12 pkgs, 744 lbs, T H Grossmith, Neustria, Marseilles
PATENT DRYER—10 cks, 6,091 lbs, E Hill's Son & Co, Idaho, Hull
PEPPER—1,083 bgs, J W Phyfe & Co, Ras Issa, Singapore
2,675 bgs, Winter & Smillie, Ras Issa, Singapore
410 bgs, C von Pustau & Co, Ras Issa, Singapore
404 bgs, J Kissock & Co, Ras Issa, Singapore
415 bgs, D A Shaw & Co, Satsuma, Singapore
171 bgs, R Crooks & Co, Ras Issa, Penang
PLUMBAGO—80 bbls, C B Richard & Co, Barbarossa, Bremen
POMADE—1 cs, T H Grossmith, Neustria, Marseilles
POTASH, BIOXYLATE—20 cks, Roessler & H Chem Co, Hellig Olav, Christiania
CARB—36 cks, 40,631 lbs, Peters, White & Co, Lugano, Hamburg
6 bbls, 7,686 lbs, A Klipstein & Co, Zeeland, Antwerp
CAUSTIC—95 dms, 53,600 lbs, Roessler & H Chem Co, Lugano, Hamburg
60 dms, 29,069 lbs, A Klipstein & Co, Zeeland, Antwerp
MURI—1,000 bgs, 224,000 lbs, Peters, White & Co, Lugano, Hamburg
1,000 bgs, 224,840 lbs, H J Baker & Bro, Lugano, Hamburg
500 bgs, 112,000 lbs, Peters, White & Co, Barbarossa, Bremen
1,000 bgs, 224,000 lbs, Heller, Hirsh & Co, K W der Grosse, Bremen
PRUSSIAN—12 cks, 5,808 lbs, Kuttroff, Pickhardt & Co, Zeeland, Antwerp
POTATO FLOUR—30 bgs, 6,614 lbs, Hoey Scardefield & Co, Patricia, Hamburg
STARCH—100 bgs, 22,046 lbs, S Oppenheimer & Co, Patricia, Hamburg
PUMICE—605 pkgs, 677,200 lbs, J H Rhodes & Co, Nap Prince, Messina
30 cs, 5 tons, H Behr & Co, Ryndam, Rotterdam
QUEBRACHO WOOD—3,073,446 lbs, Stamford Mfg Co, E C Mowatt, Buenos Ayres
QUININE—10 cs, McKesson & Robbins, La Lorraine, Havre
25 cs, Tice & Lynch, Celtic, Liverpool
2 cs, G W Sheldon & Co, Gnelsenau, Bremen
QUINCE SEED—3 bls, J L Hopkins & Co Alexandria, Stettin
RAPE SEED—100 bgs, 21,715 lbs, J D Nordlinger, Texas, Stettin
RESORCIN—5 cks, H A Metz & Co, Ryndam, Rotterdam
RHUBARB—13 cs, Parke, Davis & Co, Satsuma, Singapore
ROSE LEAVES—2 bls, 184 lbs, Parke, Davis & Co, Celtic, Liverpool
WATER—2 cks, T H Grossmith, Neustria Marseilles
25 carboys, Ungerer & Co, Neustria, Marseilles
SABADILLA SEED—17 bgs, Lehn & Fink, Pretoria, Hamburg
SAFFRON—2 cs, 200 lbs, Parke, Davis & Co, La Lorraine, Havre
1 cs, 100 lbs, Stallman & Fulton Co, Mesaba, London
SALT CAKE—15 cks, 22,400 lbs, A de Rondo & Co, Celtic, Liverpool
SANDALWOOD—339 bdls, 54,432 lbs, Parke, Davis & Co, Minnetonka, London
320 bdls, Euler & Robeson, Minnetonka, London
SANTONIN—2 cs, 220 lbs, Merck & Co, Lugano, Hamburg
SARSAPARILLA—76 bls, 16,966 lbs, L N Chemidlin & Co, Bayonne, Tampico
45 bls, 9,275 lbs, E N Tibballs & Co, Bayamo, Tampico
13 bgs, 341 lbs, Peek & Velsor, St Paul, London
SATIN WHITE—48 cks, 36,596 lbs, A Dougherty, Celtic, Liverpool
SOAP, CASTILE—210 cs, 8,229 lbs, J Munroe & Co, Pr Irene, Genoa
200 cs, 7,629 lbs, McKesson & Robbins, Pr Irene, Genoa
SODA, ASH—103 cks, 174,665 lbs, Heller & Merz Co, Celtic, Liverpool
13 tcs, 23,092 lbs, Wing & Evans, Victorian, Liverpool
CRYSTALS—224 cks, 100 kegs, 104,600 lbs, Wing & Evans, Victorian, Liverpool
SPONGE—10 bls, Huencke Sponge Co, Niagara, Nassau
37 bls, Leousi, Clonney & Co, Liguria, Naples
32 bls, Leousi, Clonney & Co, Cherokee, Turks Island
19 bls, Lasker & Bernstein, Morro Castle, Havana
STIC LAC—150 bgs, Berry Bros, Reichenfels, Calcutta
SULPHUR ORE—7,939,181 lbs, Penna Salt Co, Huelva, Huelva
SUMAC—638 bls, 101,761 lbs, Leber & Meyer, Pr Oskar, Palermo
EXT—57 bbls, 24,619 lbs, Geigy Aniline & Ext Co, Zeeland, Antwerp
TALC—200 bgs, 20 tons, Perry, Ryer & Co, Fricka, Bordeaux
200 bgs, 44,000 lbs, T S Todd & Co, Citta di Milano, Genoa
TAPIOCA FLOUR—420 bgs, 114,240 lbs, C Morningstar & Co, Celtic, Liverpool
488 bgs, R Crooks & Co, Georgic, Liverpool
385 bgs, R Crooks & Co, Celtic, Liverpool
1,008 bgs, R Crooks & Co, Ras Issa, Singapore
1,157 bgs, Haebler & Co, Ras Issa, Singapore
TEA SWEEPINGS—667 bgs, Hensel, B & L, Satsuma, Kobe
1,334 bgs, Hensel, B & L, Acme, Kobe
TERRA ALBA—30 cks, 16 tons, F A Reichard, Neustria, Marseilles
THYME LEAVES—5 bls, 1,056 lbs, J L Hopkins & Co, Celtic, Liverpool
TURPENTINE, SPIRITS—20 bbls, R C Woodcock, Coastwise, Boston
ULTRAMARINE—10 pkgs, 3,907 lbs, Kuttroff, Pickhardt & Co, Ryndam, Rotterdam
VANILLA BEANS—5 cs, 729 lbs, Thebaud Bros, Esperanza, Vera Cruz
18 cs, 2,952 lbs, H Marquardt & Co, Esperanza, Vera Cruz
5 cs, 7,000 lbs, Thebaud Bros, Esperanza, Vera Cruz
3 cs, 660 lbs, Graham, Hinkley & Co, Esperanza, Vera Cruz
12 cs, 1,997 lbs, E N Tibballs & Co, Esperanza, Vera Cruz
1 cs, 15 lbs, E Steiger & Co, Esperanza, Vera Cruz
20 cs, 3,406 lbs, American Trading Co, Esperanza, Vera Cruz
44 cs, Thurston & Braidich, La Touraine, Havre
VARNISH—52 pkgs, N Duperon, St Paul, London
VENETIAN RED—12 bbls, Hemingway & Co, Mesaba, London
VERMILION—1 ck, 110 lbs, G Seigel & Co, Ryndam, Rotterdam
WHITE LEAD—100 kegs, 11,200 lbs, Pomeroy & Fischer, Teutonic, Liverpool
WITHERITE—300 bgs, 66,396 lbs, Gabriel & Schail, Ryndam, Rotterdam
WAX, BEES—3 bgs, L N Chemidlin & Co, Bayonne, Tampico
CARNAUBA—121 bgs, 23,262 lbs, Strohmeyer & Arpe Co, Patricia, Hamburg

A. Klipstein & Company,

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ANILINE COLORS

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Oxalic Acid

BRANCH HOUSES.—BOSTON, 283-285 Congress St. PHILADELPHIA, 50-52 N. Front St. CHICAGO, 136 Kinzie St. PROVIDENCE, R. I., 13 Matheweon St. HAMILTON, ONT., Catharine St. MONTREAL, 17 Lemoine St.

CERESIN—300 bgs, 44,896 lbs, C Morningstar & Co, Patricia, Hamburg
JAPAN—100 cs, Parke, Davis & Co, Ras Issa, Kobe
MINERAL—290 bgs, 31,900 lbs, Strohmeyer & Arpe Co, Patricia, Hamburg
200 bgs, 22,792 lbs, L A Solomon & Bro, Patricia, Hamburg
VEGETABLE—39 bgs, 7,245 lbs, Smith & Nichols, Patricia, Hamburg
ZEDOARY ROOT—3 bls, J L Hopkins & Co, Ultonia, Trieste
ZINC OXIDE—30 pkgs, 10,358 lbs, J A & W Bird & Co, Noordam, Rotterdam
100 bbls, 22,046 lbs, G A & E Meyer, Ryndam, Rotterdam
38 pkgs, 9,902 lbs, J A & W Bird & Co, Ryndam, Rotterdam

Warehoused.

ACID, CITRIC—10 bbls, 1,119 lbs, Geo Lueders & Co, Teutonic, Liverpool
ANILINE COLORS—64 pkgs, Farb of Elberfeld Co, Kroonland, Antwerp
BRONZE POWDER—3 cs, 1,500 lbs, G Meier & Co, Barbarossa, Bremen
CHEMICAL PREP—12 cs, 1,880 lbs, Roessler H Chem Co, Patricia, Hamburg
GLUE—50 bgs, 10,873 lbs, C Morningstar & Co, Patricia, Hamburg
159 bgs, 26,005 lbs, Milligan & H Glue Co, Idaho, Hull
90 cks, 30,500 lbs, Miller & Kaschu, Idaho, Hull
25 cks, 11,505 lbs, C Townsend, Idaho, Hull
VEG—500 bbls, Knauth, N & K, Barbarossa, Bremen
LICORICE PASTE—265 cs, 67,900 lbs, E Utard, Fricka, Bordeaux
SACCHARINE—10 cs, 220 lbs, Geo Lueders & Co, Barbarossa, Bremen
SPONGE—39 cs, Lasker & Bernstein, Morro Castle, Havana
GLYCERINE—50 drs, Amer Ex Co, Cymric, Liverpool
GREASE—100 bbls, F L Young & Kimball, Consuelo, Hull
100 bbls, Consuelo, Hull
100 bbls, J S Bent & Co, Consuelo, Hull
SOD—30 bbls, Geo H Leonard & Co, Ivernia, Liverpool
GUM, ARABIC—41 bgs, Iberian, Manchester
FRAGOSOL—27 cks, Stone & Donner Co, Cymric, Manchester
MICA—96 pkgs, J B Moors & Co, Lancastrian, London
OIL—70 bbls, Devonian, Liverpool
COD—15 bbls, J S Bent & Co, Consuelo, Hull
LUB—3 bbls, Cymric, Liverpool
200 bbls, Baring Bros & Co, Consuelo, Hull
OLIVE—8 cks, J S Bent & Sons, Iberian, Manchester
16 cks, A Agostino, Canopic, Genoa
1 bbl, Antonio Venio, Canopic, Naples
1 bbl, Francesco Martorano, Canopic, Naples
1 bbl, Angelodi Francesco, Canopic, Naples
3 bbls, Fortunato La Carresa, Canopic, Naples
4 bbls, Consol Rending Co, Canopic, Naples
150 bbls, Brown Bros & Co, Consuelo, Hull
PALM—17 cks, J B Moors & Co, Devonian, Liverpool
PAINT—3 cks, Austin, Baldwin & Co, Cymric, Liverpool
EARTH—1 ck, Downing's Amer Ex, Iberian, Manchester
PEPPER—247 bgs, Lancastrian, London
PITCH—36 pkgs, L W Ferdinand & Co, Lancastrian, London
18 bbls, J Bibby & Sons, Cymric, Liverpool
500 bbls, Lancastrian, London
POTASH—60 bbls, Consuelo, Hull
CAUSTIC—10 drs, Lazard Bros, Consuelo, Hull
SULPH—2 cks, John Bouler, Ivernia, Liverpool
QUEBRACHO EXT—200 bbls, Canopic, Genoa
SILICON, EARTH—303 bbls, Amer Ex Co, Consuelo, Hull
SOAP—13 pkgs, Amer Ex Co, Lancastrian, London
80 cks, Witherell Bros, Iberian, Manchester
STOCK—59 bbls, Brown Bros & Co, Consuelo, Hull
SODA ,ASH—25 cks, Sachem, Liverpool
32 tcs, 120 bgs, Wing & Evans, Devonian, Liverpool
NIT—9 cks, J A & W Bird & Co, Iberian, Manchester
SULPH—13 cks, J A Davison, Lancastrian, London
SUMAC, GROUND—2,800 bgs, Brown Bros & Co, Canopic, Palermo
5,795 bgs, Canopic, Palermo
WHITE LEAD—100 pkgs, A C Needham, Consuelo, Hull
100 tins, W N Proctor & Co, Consuelo, Hull
50 kgs, E & F King & Co, Consuelo, Hull

Withdrawals from Bond.

Albumen, egg, cs	9
Aniline colors, cks	494
Aniline colors, bbls	5
Aniline colors, kegs	19
Aniline colors, cs	5
Bristles, cs	146
Bronze powder, cs	2
Chemical salt, cs	2
Chillies, bgs	619
Cocoa butter, cs	25
Cocoa butter, bgs	50
Coal tar prep, cks	3
Colors, cs	5
Corks, bls	215
Dextrine, bgs	100
Gelatine, cs	31
Glass, plate, cs	5
Glue, cks	52
Glue, bbls	27
Glue, bls	25
Gum, chicle, bls	88
Gum, chicle, bgs	60
Medical prep, cs	20
Menthol, cs	1
Mica, cs	25
Oil, codliver, bbls	593
Opium, cs	9
Paints, cks	38
Poppy seed, bgs	25
Poppy seed, bgs	100
Potato flour, bgs	100
Sponge, bls	6

Boston Imports.

ACID, CRYST'S—25 cks, Amer Ex Co, Lancastrian, London
OXALIC—20 cks, J L & D S Riker, Sachem, Liverpool
ANILINE COLOR—1 kg, 10 cks, J A & W Bird & Co, Iberian, Manchester
8 kgs, Iberian, Manchester
BLEACH—282 cks, Ivernia, Liverpool
384 cks, Sachem, Liverpool
53 cks, J L & D S Riker, Devonian, Liverpool
BRIMSTONE—4,000 bgs, Linder & Meyer, Canopic, Palermo
BRISTLES—2 cs, J C Pushee & Sons, Ivernia, Liverpool
6 cs, Morris' European & Amer Ex, Ivernia, Liverpool
1 ck, Davies, Turner & Co, Lancastrian, London
5 cs, Wells, Fargo & Co, Lancastrian, London
CHALK—200 tons, John Briggs & Co, Lancastrian, London
200 tons, Lancastrian, London
CHEMICALS—16 cks, Corean, Glasgow
COLOR—4 cks, W N Proctor & Co, Lncastrian, London
9 cks, 10 cs, 2 kgs, Iberian, Manchester
CREOSOTE—250 cks, Amer Ex Co, Lancastrian, London
GLASS, WINDOW—5 cs, W N Proctor & Co, Devonian, Liverpool
GELATINE—75 cs, S S Pierce & Co, Cymric, Liverpool
GLUE—1 ck, Turner & Heffler, Iberian, Manchester
10 bbls, Amer Glue Co, Sachem, Liverpool
98 cs, Amer Ex Co, Canopic, Genoa
STOCK—208 bgs, J B Moors & Co, Iberian, Manchester
46 bls, A K Gardiner & Co, Sachem, Liverpool
10,502 bgs, Alof Kyree, Junin
WAX MINERAL—25 bgs, Itzehoe, Hamburg
ZINC, CHLORIDE—50 drs, Ulstermore, Liverpool

New Orleans Imports.

OIL—181 cs, Vincenzo Florio, Palermo
12 cs, Soperga, Genoa
ESS'L—6 cs, Soperga, Genoa
OLIVE—74 cks, Vincenzo Florio, Palermo
PUMICE STONE—5 cks, 740 bgs, Regina Elena, Messina
SOAP—450 cs, Soperga, Genoa
SPONGES—19 bls, Excelsior, Havana
TALC—50 bgs, Soperga, Genoa

Newport News Imports.

BARYTES—197 cks, A A Eberson & Co, Powhatan, London
CHINA CLAY—60 cks, Perkins, Goodwin & Co, Shenandoah, Liverpool
300 cks, Wheelwright, Filler & Mfg Co. Shenandoah, Liverpool
657 cks, Morey & Co, Shenandoah, Liverpool
200 cks, Jean Freese, Shenandoah, Liverpool
FULLER'S EARTH—2,200 bgs, Hammill & Gillespie, Powhatan, London
800 bgs, L A Solomon & Bro, Powhatan, London
GLYCERINE—110 ds, Proctor & Gamble Co, Powhatan, London
40 cks, Proctor & Gamble, Powhatan, London
LIME, CARBONATE—10 cks, Meyers Bros Drug Co, Shenandoah, Liverpool
VENETIAN RED—315 bbls, J Lee Smith & Co, Shenandoah, Liverpool

San Francisco Imports.

CHLORINE—60 pkgs, Vulcan Iron Wks, Acapulco, Ancon
DYESTUFF—5 pkgs, Kuttroff, Pickhardt & Co, Acapulco, Ancon
GUANO—548 sks, Curacao, Guaymas
OIL—175 cs, Coptic, Hong Kong
216 pkgs, Valvoline Oil Co, Acapulco, Ancon
LUB—60 pkgs, Geo A Moore & Co, Acapulco, Ancon
OPIUM—12 bxs, Coptic, Hong Kong
PAINT—29 cs, Senator, Victoria
12 pkgs, Bass Heuter Paint Co, Acapulco, Ancon
24 pkgs, Smith & Young, Acapulco, Ancon
8 pkgs, H W Windrale, Acapulco, Ancon
SALTPETER—10 pkgs, Redington & Co, Acapulco, Ancon
SULPHITES—32 sks, Curacao, Guaymas
SODA ASH—150 pkgs, M Bettman & Co, Acapulco, Ancona
TAR—430 bbls, Senator, Victoria
WHITE LEAD—72 pkgs, Yates & Co, Acapulco, Ancona

EXPORTS FROM NEW YORK.

Week ending May 11.

ACID, CARB—10 bbls, $253, Esperanza, Vera Cruz
2 cs, $35, Mexico, Havana
MURIATIC—100 cbys, $305, Bayamo, Havana
15 cbys, $27, Mexico, Havana
SULPHURIC—2 cbys, $9, Graecia, Cartagena
2 cbys, $9, Celia, Moliendo
5 drs, $27, Celia, Callao
6 drs, 98 cbys, $526, Bayamo, Havana
6 carboys, $23, Altai, Kingston
TARTARIC—20 cks, 12,327 lbs, $2,200, Mesaba, London
ALCOHOL—1 bbl, 4 cs, $113, Athalie, Seville
AMMONIA—4 bxs, $10, Bermudian, Hamilton
3 cs, $133, Magaro, Cuba
2 cyls, $91, Maraval, Grenada
AQUA—2 cbys, $11, Mexico, Havana
ANILINE DYES—53 cks, 2 cs, $2,000, Statender, Rotterdam
ANNISEED—2 bbls, $32, Altai, Belize
CALCIUM CARB—3 cs, 14,000 drs, $36,551, Bayamo, Havana
1,018 drs, $2,745, Rossall, Buenos Ayres
40 drs, $140, Synefield, Montevideo
CANDLES—200 cs, $370, Niagara, Cuba
10 bxs, 6 bdles, $42, Altai, Belize
20 bdles., $99, Coamo, Porto Rico
200 cs, $331, Mexico, Havana
CARBON BLACK—294 bbls, $294, Statender, Rotterdam
130 bbls, $475, Hamburg, Hamburg
150 bbls, $1,500, La Lorraine, Havre
450 cs, $6,750, Idaho, Hull
20 bbls, $125, Caledonia, Glasgow
CASSIA—2 bgs, $9, Kalfond, Azua
5 bls, $20, Rossall, Montevideo
10 bls, $45, Cametense, Maranham
10 chsts, $64, Altai, Kingston
CHEMICAL SALT—22 cs, $579, Ghazer, Havre
3 cs, $206, Mexico, Havana
CINNAMON—2 bls, $30, Celia, Salaverry
5 bls, $85, Celia, Callao
621 bls, $1,083, Esperanza, Havana
CLAY—647 bgs, $647, Nord America, Genoa
2,369 bgs, $1,885, Hamburg, Hamburg
325 bgs, $325, Idaho, Hull
140 bgs, $110, Mesaba, London
COLORS—6 bbls, $42, Teutonic, Liverpool
COPPER SULPHATE—30 cs, 750 lbs, $50, Zulia, Maracaibo
COTTONSEED—40 bgs, $340, Niagara, Nassau
CUMMIN SEED—2 bgs, $12, Gracia, Savanilla
2 bgs, $21, Zulia, Maracaibo
DYEWOOD EXTR—10 bbls, $142, Nord America, Genoa
50 bxs, $155, Statender, Amsterdam
30 bxs, $81, Zulia, Antwerp
100 bbls, $2,325, Campania, Liverpool
FERTILIZER—100 bbls, 1,500 bgs, $2,729, Athalie, Spain
820 bgs, $1,924, Coamo, Porto Rico
20 bgs, $74, Mexico, Havana
FULLER'S EARTH—1 cs, $14, Hamburg, Hamburg
GLAUBER SALTS—15 bbls, $39, Coamo, Porto Rico
GLUCOSE—420 bbls, $6,000, Well City, Bristol
60 bbls, $821, Amatonga, Cape Town
40 bbls, $560, Amatonga, E London
200 bbls, $2,400, Georgic, Liverpool
50 bbls, $625, Italian Prince, Algoa Bay
770 bbls, $7,700, Idaho, Hull
5 bbls, $50, Esperanza, Vera Cruz
100 bbls, $135, Rossall, Buenos Aires
430 bbls, $4,100, Mesaba, London
250 bbls, $3,150, Caledonia, Glasgow
GLUE—4 bbls, $115, Esperanza, Vera Cruz
4 cs, 169 bbls, $5,057, Caledonia, Glasgow
GRAPE SUGAR—2,000 bgs, 224,000 lbs, $4,480, Wells City, Bristol
429 bgs, 55,881 lbs, $6,000, Idaho, Hull
500 bgs, $1,100, Mesaba, London
GRAPHITE—10 cs, $64, Amatonga, Port Natal
4 cs, $65, Byron, Pt Alegro
GREASE, SOAP—90 tcs, $1,450, Liguria, Genoa
60 tcs, $940, Nord America, Naples
90 tcs, $1,369, Hamburg, Hamburg
60 tcs, $960, Gerty, Trieste
LUB—10 bbls, $881, Zulia, Maracaibo
100 bbls, $1,750, Liguria, Genoa
15 bbls, 25 cs, $187, Nord America, Alexandria
49 bbls, $299, Amatonga, Algoa Bay
210 cs, $316, Amatonga, Mossel Bay
17 cs, $68, Amatonga, Port Natal
30 cs, $47, Amatonga, E London
315 bbls, $395, Georgic, Liverpool
175 bbls, $2,525, Statendam, Rotterdam
30 bbls, $313, Egyptian Prince, Buenos Aires
50 cs, $80, Italian Prince, E London
94 cs, $134, Italian Prince, Cape Town
25 cs, $75, Italian Prince, Delagoa Bay
50 cs, $141, Italian Prince, Algoa Bay
80 cs, $133, Italian Prince, Pt Natal
14 bbls, 20 pkgs, $268, Celia, Callao
20 bbls, $317, Celia, Valparaiso
25 kgs, $75, Celia, Telcahuano
15 bbls, 30 tubs, $105, Frankby, Wellington
50 kgs, $60, Celia, Antofagasta
30 kgs, $41, Celia, Mollendo
20 bbls, $373, Finance, Colon
50 kgs, $107, Esperanza, Frontera
60 bbls, $974, Zeeland, Antwerp
10 bbls, $148, Mesaba, London
10 cs, $12, Maravoi, Trinidad
630 bbls, $8,000, Campania, Liverpool
25 bbls, $181, Coamo, Porto Rico
10 bbls, 50 kgs, $196, Mexico, Havana
12 bbls, $200, Tynefield, Buenos Aires
GUM, ALOES—60 cs, $282, Teutonic, Liverpool
COPAL—1 cs, $20, Teutonic, Liverpool
DAMAR—15 bgs, $360, Mexico, Havana
HYPOSULPHITE—15 bbls, $85, Esperanza, Vera Cruz
LEAD—419 pigs, 44,811 lbs, $1,160, Statendam, Amsterdam
424 pigs, 44,802 lbs, $1,160, Statendam, Rotterdam
533 pigs, 56,127 lbs, $1,450, Barbarossa, Copenhagen
6,343 pigs, 672,329 lbs, $19,460, Barbarossa, Bremen
4,234 pigs, 448,189 lbs, $11,600, Caledonia, Glasgow
4,237 pigs, 448,269 lbs, $11,800, Blucher, Hamburg
39 pigs, 4,025 lbs, $191, Coamo, Porto Rico
LIME, ACETATE—1,557 bgs, 216,646 lbs, $5,300, Statendam, Rotterdam
1,294 bgs, 182,740 lbs, $5,050, Hamburg, Hamburg
4,740 bgs, 760,645 lbs, $17,650, Zeeland, Antwerp
LINSEED—3 hhds, $45, Esperanza, Vera Cruz
MAGNESIA— 8 bbls, $21, Auchenbole, Yokohama
OIL, ALMOND—5 cs, $36, Altai, Pto Cortez
BERGAMOT—6 cs, $270, Esperanza, Vera Cruz
CAKE—732 bgs, 224,199 lbs, $3,016, Georgic, Liverpool
2,250 bgs, 62,436 lbs, $8,375, Statendam, Rotterdam
948 bgs, 122,000 lbs, $1,850, Ghazee, Havre
1,719 bgs, 493,036 lbs, $7,025, Celtic, Liverpool
1,500 bgs, 504,602, $6,000, Zeeland, Antwerp
CAKE CORN—1,563 sks, 391,643 lbs, $4,875, Ghazee, Havre
CAKE, LINSEED—758 bgs, 265,300 lbs, $3,790, Nederland, Antwerp
27 bgs, 9,083 lbs, $135, Amatonga, Cape Town
CASTOR—60 cs, $499, Mexico, Havana
20 cs, $108, Esperanza, Vera Cruz
14 bxs, $93, Altai, Pto Cortez
COCOANUT—2 bbls, $55, Finance, Colon
CODLIVER—45 bbls, $1,170, Esperanza, Vera Cruz
37 bbls, $962, Bayamo, Tampico
CORN—250 bbls, $3,772, Idaho, Hull
1,100 bbls, $15,301, Zeeland, Antwerp
CORDAGE—100 bbls, $476, Mexico, Havana
COTTONSEED—100 cs, $508, Zulia, Curacao

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CORRESPONDENCE SOLICITED.

A FULL LINE OF VARNISH DRYERS

250 bbls, $3,493, Pocahontas, Rotterdam
30 bbls, $460, Nord America, Port Said
60 bbls, $900, Nord America, Alexandria
50 bbls, $600, Georgic, Liverpool
150 bbls, $2,170, Statendam, Rotterdam
25 bbls, $357, Nile, Barbadoes
229 bbls, $3,111, Byron, Rio Janeiro
25 bbls, $300, Byron, Santos
25 bbls, $375, Egyptian Prince, Buenos Ayres
5 cs $32, Graccia, Port au Prince
10 cs, $83, Graccia, Colon
125 bbls, $2,150, Pocahontas, Rotterdam
50 bbls, $838, Celia, Valparaiso
250 bbls, $4,750, Ghazee, Havre
50 bbls, $754, Ghazee, Dunkirk
300 bbls, $5,345, Barbarossa, Bremen
50 bbls, $900, Barbarossa, Stockholm
475 bbls, $8,370, Weimar, Genoa
28 cs, $108, Kalfond, Azua
125 bbls, $1,900, Idaho, Hull
125 bbls, 650 cs, $3,852, Rossall, Montevideo
60 bbls, $807, Rossall, Buenos Ayres
900 bbls, $13,500, Zeeland, Antwerp
100 bbls, $1,383, Manuel Calvo, Tangier
225 bbls, $3,396, Mesaba, London
810 bbls, $10,825, Caledonian, Glasgow
1,195 bbls, $14,198, Fricka, Bordeaux
1 bbl, 50 cs, $267, Maraval, Grenada
10 bbls, $167, Maraval, Trinidad
300 bbls, $5,005, Genisenau, Bremen
400 bbls, $5,625, Gerty, Trieste
17 cs, $95, Altai, Pto Cortez
4 bbls, 51 cs, $709, Altai, Kingston
24 cs, $100, Altai, Annato Bay
10 cs, $58, Altai, Pt Antonio
5 cs, $14, Altai, Montego Bay
CREOSOTE—120 drs, $587, Esperanza, Vera Cruz
CYLINDER—6 bbls, $150, Statendam, Rotterdam
ESS'L—10 cs, $803, Statendam, Rotterdam
6 cs, $420, Ghazee, Havre
3 cs, $335, Esperanza, Vera Cruz
2 cs, $71, Esperanza, Havana
18 cs, $2,058, Mesaba, London
3 cs, $150, Mexico, Havana
LARD—80 cs, $609, Amatonga, Algoa Bay
10 cs, $95, Amatonga, Cape Town
40 cs, $304, Amatonga, E London
30 cs, $240, Amatonga, Pt Natal
38 cs, $308, Amatonga, Mossel Bay
70 cs, $310, Italian Prince, Pt Natal
50 cs, $308, Celia, Valparaiso
11 bbls, $1,080, Idaho, Hull
15 bbls, $462, Caledonia, Glasgow
2 bbls, $46, Maraval, Trinidad
LINSEED—3 cs, $17, Manuel Calvo, Vigo
5 bbls, $127, Cametense, Para
7 cs, $43, Altai, Pto Cortez
4 cs, $30, Zulia, Maracaibo
LUB—30,750 gls, $3,075, Liguria, Genoa
8,750 gls, $875, Liguria, Odessa
7,200 gls, $1,700, Caledonia, Glasgow
25,500 gls, $4,288, Nord America, Genoa
2,630 gls, $049, Amatonga, Algoa Bay
50 gls, $22, Amatonga, Mossel Bay
2,500 gls, $653, Amatonga, Pt Natal
29,550 gls, $3,986, Georgic, Liverpool
5,000 gls, $680, Stander, Rotterdam
2,700 gls, $478, Stander, Augsburg
500 gls, $81, Stander, Nurnburg
3,000 gls, $457, Stander, Mannheim
6,000 gls, $780, Stander, Koln
22,000 gls, $4,203, Stander, Duisburg
9,050 gls, $2,007, Stander, Stuttgarn
50,000 gls, $3,500, Hamburg, Hamburg
38,400 gls, $4,729, Byron, Rio Janeiro
800 gls, $800, Byron, Bahia
10,150 gls, $3,852, Byron, Santos
250 gls, $40, Graccia, Pt au Prince
40 gls, $133, Graecia, Caltagena
23,700 gls, $3,546, Egyptian Prince, Buenos Ayres
5,000 gls, $570, Italian Prince, Algoa Bay
9,500 gls, $1,833, Frankby, Wellington
2,920 gls, $581, Celia, Iquique
2,750 gls, $670, Celia, Callao
150 gls, $82, Celia, Corral
6,950 gls, $1,226, Celia, Talcahuano
7,370 gls, $4,350, Celia, Valparaiso
4,000 gls, $500, Celia, Salavery
5,400 gls, $1,468, Celia, Chili
400 gls, $90, Celia, Punta Arenas
9,750 gls, $1,910, Celia, Antofagasta
8,870 gls, $11,742, Ghazee, Havre
240,050 gls, $26,170, Ghazee, Dunkirk
3,000 gls, $394, Finance, Colon
3,000 gls, $526, Athalie, Bilboa
86,200 gls, $9,883, Barbarossa, Bremen
1,750 gls, $175, Barbarossa, Colombo
77,100 gls, $9,821, Idaho, Hull
2,500 gls, $365, Hellig Olav, Copenhagen
4 tanks, $7,735, Bayamo, Tampico
40 gls, $14, Hero, Cuba
3,675 gls, $4,022, Zeeland, Antwerp
47,750 gls, $7,500, Mesaba, London
47,900 gls, $4,804, Fricka, Bordeau
48,500 gls, $4,925, Caledonia, Glasgow
1,800 gls, $346, Cametense, Maranham
2,500 gls, $230, Cametense, Para
1,100 gls, $100, Cametense, Ceara
44,500 gls, $4,754, Campania, Liverpool
250 gls, $60, Ultonia, Fiume
2,500 gls, $225, Gerty, Venice
150 gls, $50, Altai, Kingston
1,000 gls, $18, Altai, Belize
750 gls, $160, Coamo, Pto Rico
26,750 gls, $6,164, Tynefield, Rosario
2,850 gls, $500, Tynefield, Montevedio
3,050 gls, $687, Tynefield, Buenos Ayres
3,000 gls, $407, Mexico, Havana
MEAL—1,160 bgs, $2,162, Maraval, Trinidad
25 bgs, 30 bbls, 7,125 lbs, $143, Maraval, Grenada
MEAL CORN—60 bgs, $114, Maraval, Trinidad
MINTL COLZA—1,000 gls, $580, Amatonga, Pt Natal
1,500 gls, $150, Zeeland, Antwerp
3,750 gls, $375, Caledonia, Glasgow
OLEO—65 tcs, $4,080, Kronprinz Wilhelm, Bremen
60 tcs, 300 bbls, $9,966, Statendam, Rdam
3 bbls, $49, Finance, Colon
70 tcs, $2,550, Idaho, Hull
50 tcs, $1,800, Texas, Copenhagen
188 tcs, $7,141, Mesaba, London
50 tcs, $1,000, Campania, Liverpool
PEPP—1 cs, $28, Altai, Kingston
RED—300 b, $3,000, Idaho, Hull
SEWING MACHINE—36 cs, $98, Finance, Colon
5 cs, $18, Esperanza, Havana
5 cs, $15, Esperanza, Vera Cruz
8 cs, $27, Bayamo, Tampico
5 cs, $30, St Paul, Southampton
20 cs, $200, Mesaba, London
2 pkgs, $70, Mexico, Havana
OLEOMARGARINE—2,133 tcs, $72,825, Statendam, Rotterdam
25 tcs, $896, Hamburg, Hamburg
35 tcs, $1,404, Idaho, Hull
PAINT—3 cs, $160, Amatonga, Pt Natal
5 bbls, $210, Amatonga, Cape Town
79 cs, $690, Georgic, Liverpool
307 cs, $229, Byron, Rio Janeiro
13 cs, $91, Byron, Santos
13 cs, $165, Italian Prince, Cape Town
74 cs, $271, Italian Prince, E London
2 hf bbls, $75, Auchenblae, Bangkok
10 bbls, $191, Zulia, Maracaibo
16 cs, $220, Celia, Salavery
5 cs, $133, Celia, Valparaiso
20 hf bbls, $181, Frankby, Dellington
5 cs, $36, Ghazee, Havre
5 cs, 10 kegs, $93, Finance, Colon
4 cs, $58, Bermudian, Hamilton
20 cs, $289, Athalie, Vego
30 kegs, $82, Kalfond, Macoris
80 bgs, $200, Celtic, Liverpool
15 bxs, 4 bbls, $426, Esperanza, Vera Cruz
7 cs, $102, Esperanza, Havana
8 cs, $325, Bayamo, Tampico
2 bbls, $120, Hero, Cuba
18 cs, $178, Rossall, Montevedio
20 cs, $258, Rossall, Buenos Ayres
2 bbls, 2 kegs, 20 cs, 8 pkgs, $132, Mesaba, London
57 cs, $528, Caledonia, Glasgow
5 bbls, 5 cs, $109, Coamo, Porto Rico
12 bbls, 11 kegs, 2 cs, $417, Mexico, Havana
PEPPER—2 bgs, $31, Graecia, Port au Prince
2 bgs, $22, Graecia, Savanilla
20 bgs, $230, Celia, Callao
3 bgs, $34, Bayamo, Tampico
20 bgs, $196, Cametense, Maranham
PETROLEUM JELLY—6 cs, $114, Teutonic, Liverpool
4 cs, $65, Amatonga, Algoa Bay
11 cs, $103, Celtic, Liverpool
28 bbls, 55 cs, $2,192, Idaho, Liverpool
35 bbls, 35 kegs, 18 cs, $910, Zeeland, Ant
64 cs, $751, Mesaba, London
14 cs, $591, Tynefield, Rosario
PITCH—61 pcs, $130, Amatonga, Pt Natal
30 bbls, $156, Idaho, Hull
5 bbls, $14, Maraval, Grenada
5 bbls, $13, Altai, Kingston
10 bbls, $25, Mexico, Havana
10 bbls, $25, Zulia, Curacao
POTASH—2 cks, $60, Esperanza, Havana
CHLORATE—5 kegs, 500 lbs, $51, Coamo, Porto Rico
RED LEAD—6 kegs, $20, Manure Calvo, Vigo
3 kegs, $39, Zulia, La Guaira
ROSIN—795 bbls, $5,117, Byron, Bahia
20 bbls, $148, Zulia, Maracaibo
20 bbls, $130, Celia, Callao
225 bbls, $1,373, Celia, Mollendo
32 bbls, $225, Finance, Colon
50 bbls, $231, Kalfond, San Domingo
200 bbls, $1,292, Rossall, Buenos Ayres
77 bbls, 60 hf bbls, 10 cs, $481, Cametense, Para
30 bbls, $179, Cametense, Maranham
100 bbls, $602, Cametense, Ceara
100 bbls, $649, Zulia, Maracaibo
SARSAPARILLA—7 bls, $309, Neustria, Oran
10 bbls, $1,193, Manure Calvo, Barcelona
SHEEP DIP—500 bgs, $1,215, Tynefield, Bahia
1,401 bgs, $3,111, Tynefield, Buenos Ayres
SHELLAC—3 cs, $95, Esperanza, Havana
SOAP—500 bxs, $1,795, Wells City, Bristol
38 cs, $807, Teutonic, Liverpool
3 cs, $61, Amatonga, Cape Town
15 cs, $400, Amatonga, Port Natal
5 cs, $60, Amatonga, E London
165 cs, $877, Graecia, Port au Prince
10 cs, $135, Graceia, Inagua
253 bgs, $327, Graceia, Colon
40 cs, $108, Graceia, Savanilla
10 cs, $38, Italian Prince, Port Natal
13 cs, $300, Celia, Callao
50 cs, $117, Celia, Iquique
13 cs, $300, Celia, Valparaiso
12 bdls, $80, Celia, Santiago
18 cs, $42, Bermudian, Hamilton
60 bxs, $36, Kalfond, Azua
80 bxs, $203, Idaho, Hull
10 cs, $300, Rossall, Buenos Ayres
10 cs, $39, Magana, Nassau
62 cs, $156, Magana, Cuba
40 bxs, $1,104, Mesaba, London
31 bxs, 2 pkgs, $130, Caledonia, Glasgow
675 bxs, $1,060, Maraval, Trinidad
1,380 bxs, $3,401, Coamo, Porto Rico
30 cs, 18 pkgs, $180, Mexico, Havana
40 cs, $549, Prins Willem I, Port au Prince
TANNER'S—7 bbls, $250, Zeeland, Antwerp
SPERMACETI—5 cs, $75, Mesaba, London
SODA ASH—4 bgs, 1,220 lbs, $15, Coamo, Pto Rico
2 bbls, 680 lbs, $7, Zulia, Maracaibo
BICARB—16 kgs, 1,792 lbs, $17, Esperanza, Vera Cruz
30 kgs, 3,360 lbs, $45, Altai, Kingston
2 kgs, 245 lbs, $4, Zulia, Maracaibo
CARB—25 pkgs, $55, Altai, Kingston
CAUSTIC—10 drs, 6,750 lbs, $158, Finance, Colon
6 drs, 4,800 lbs, $132, Zulia, Maracaibo
CYANIDE—20 cs, $860, Maraval, Ciudad Bolivar
SAL—5 bbls, 1,175 lbs, $13, Altai, Kingston
5 bbls, $18, Mexico, Havana
SPONGE—197 bls, $7,500, Mesaba, London
STARCH—25 bgs, $163, Mexico, Havana
24 bxs, $2,104, Bermudian, Hamilton
200 cs, $23, Finance, Colon
500 bgs, $1,350, Zeeland, Antwerp
2 bbls, 32 bxs, $65, Niagara, Nassau
300 bgs, $1,080, Caledonia, Glasgow
15 bbls, $163, Campania, Liverpool
200 bgs, $1,120, Mexico, Havana
CORN—100 cs, $80, Mexico, Havana
STEARINE, COTTONSEED—1,000 bbls, $18,000, Pocahontas, Rotterdam
100 bbls, 41,148 lbs, $1,850, Zeeland, Ant
200 bbls, $3,758, Gerty, Trieste
SULPHUR—5 bbls, $36, Finance, Colon
250 tons, $5,250, Howard, Chataw
TALLOW—12 bbls, $125, Georgic, Liverpool
6 bbls, $240, Celtia, Callao
15 bbls, 50 tcs, $1,295, Celtia, Mollendo
625 tcs, $8,175, Ghazee, Dunkirk
50 bbls, $942 Finance, Colon
30 tcs, $513, Kalford, San Domingo
120 tcs, 40,064 lbs, $2,840, Gerty, Trieste
TANKAGE—500 bgs. $1,623, Coamo, Pto Rico
TAR—10 bbls, $55, Nile, Demerara
8 bbls, $53, Zulia, Maracaibo
20 bbls, $114, Mexico, Havana
TRIPOLI CAKE—22 pkgs, $326, Teutonic Lpl
TURPENTINE—50 cs, $288, Amatonga, Cp Tn
80 cs, $567, Amatonga, Algoa Bay
80 cs, $660, Amatonga, Pt Natal
62 cs, $349, Amatonga, Mossel Bay
350 cs, $2,218, Byron, Rio Janeiro
30 cs, $220, Italian Prince, Port Natal
10 cs, $78, Italian Prince, E London
100 cs, $680, Auchenblar, Yokohama
50 cs, $278, Celia, Mollendo
75 cs, $430, Esperanza, Vera Cruz
400 cs, $2,320, Rossall, Buenos Ayres
3 cs, $22, Manuel Calvo, Vigo
3 bbls, $58, Niagara, Cuba
10 cs, $64, Cametense, Ceara
62 cs, $451, Cametense, Para
6 cs, $38, Cametense, Maranham
1 bbl, 10 cs, $96, Maraval, Grenada
10 cs, $51, Altai, Kingston
15 cs, $61, Coamo, Porto Rico
50 cs, $341, Tynefield, Rosario
100 cs, $510, Mexico, Havana
VARNISH—60 gls, $59, Amatonga, Mossel Bay
300 gls, $385, Georgic, Liverpool
20 gls, $29, Byron, Pt Alegro
200 gls, $145, Italian Prince, Delagoa Bay
20 gls, $9, Zulia, Maracaibo
150 gls, $80, Celia, Talcahuano
1,550 gls, $1,995, Ghazee, Havre
100 gls, $57, Athalie, Barcelona
1,420 gls, $1,612, Weimar, Genoa
240 gls, $422, Esperanza, Vera Cruz
20 gls, $60, Esperanza, Havana
50 gls, $67, Rossall, Buenos Ayres
1,250 gls, $1,035, Zeeland, Antwerp
20 gls, $16, Manuel Calvo, Vigo
2,050 gls, $1,075, Mesaba, London
50 gls, $48, Cametense, Para
140 gls, $120, Mexico, Havana
WAX, PAR—350 bgs, 91,560 lbs, $4,200, Liguria, Genoa
200 bgs, 22,000 lbs, $2,400, Manuel Calvo, Barcelona
40 bgs, 4,349 lbs, $480, Manuel Calvo, Valencia
200 cs, 49,236 lbs, $2,400, Amatonga, Cp Tn
521 cs, 113,455 lbs, $6,240, Amatonga, E Ldn
10 bbls, $100, Hamburg, Hamburg
10 bgs, 2,020 lbs, $160, Esperanza, Havana
800 bgs, 121,037 lbs, $6,374, Esperanza, Vera Cruz
400 bgs, 62,123 lbs, $3,029, Bayamo, Tmpco
88 bbls, 20 cs, 29,174 lbs, $1,902, Zeeland, Antwerp
2,235 bbls, 100 cs, 122,509 lbs, $6,070, Mesaba, London
275 bbls, 110,143 lbs, $5,505, Caledonia, Glsw
WHITE LEAD—3 cs, $33, Celia, Antwerp
8 kgs, Mauel Calvo, Vigo
4 bbls, $80, Coamo, Porto Rico
4 kgs, $13, Zulia, La Guayra
WHITING—4 bbls, $10, Esperanza, Vera Cruz
39 bbls, $68, Mexico, Havana
3 bbls, $3, Prins Willem I, Carupano
ZINC ASHES—37 bbls, 17,675 lbs, $250, Wells City, Bristol
OXIDE—700 bbls, 134,400 lbs, $4,800, Georgic, Liverpool
50 bbls, 11,025 lbs, $350, Statender, Rdam
30 bbls, 3 hf bbls, 11,025, $350, Statender, Amaterdam
15 bbls, 3,750 lbs, $162, Auchenblae, Kobe
1,100 bbls, 236,350 lbs, $8,100, Ghazee, Hvre
100 bbls, 24,500 lbs, $800, Idaho, Hull
5 bbls, $110, Esperanza, Havana
400 bbls, 89,600 lbs, $3,200, Mesaba, London
100 bbls, 22,400 lbs, $800, Caledonia, Glasgw

BOSTON EXPORTS.

ACID, LACTIC—12 bbls, 5 kegs, $550, Michigan, Liverpool
BONES, GROUND—200,000 lbs, $2,500, Kilkul, Wolfville, N S
COLOR—2 bbls, $28, Cestrian, Liverpool
GREASE—315 tcs, $3,625, Columbia, London
DEGRAS—10 bbls, $230, Nicolai II, Copenhagen
LINIMENT—50 cs, $250, Cambrian, London
OIL—5 bbls, $36, Boston, Yarmouth, N S
LUB—1 pkg, $1, Michigan, Liverpool
MEAL—40 bgs, $43, Boston, Yarmouth, N S
OLEO—2 bbls, $75, Itzehoe, Hamburg
70 tcs, $2,175, Columbian, London
OLEO STOCK—150 bbls, $3,963, Itzehoe, Hamburg
PAINT, COPPER—50 cs, $782, Michigan, Liverpool
SOAP—2 bxs, $7, Oakmore, Antwerp
28 cs, $2,800, Cambrian, London
STOCK—146 bbls, $2,730, Cestrian, Liverpool
SODA, NIT—10,000 lbs, $250, Kilkul, Wolfville, N S
STARCH—20 bbls, $185, Cestrian, Liverpool
TALLOW—200 tcs, $4,500, Michigan, Liverpool
300 tcs, $11,000, Cestrian, Liverpool

Philadelphia Exports.

CANDLES—34 bdls, Maryland, London
DYEWOOD EXTRACT—110 bbls, Oxonian, Atp
11 bbls, Westernland, Liverpool
GLUCOSE—120 bbls, Oxonian, Antwerp
60 bbls, Westernland, Liverpool
780 bbls, Maryland, London
GRAPE SUGAR—500 bgs, Westernland, Lpool
GREASE, LUB—30,250 gls, Westernland, Lpool
MAGNESIA—106 bbls, Maryland, London
OIL, CAKE—2,200 sks, Oxonian, Antwerp
900 tons, Canadia, Rotterdam
CAKE, LINSEED—2,803 sks, Oxonian, Atwp
690 bgs, Westernland, Liverpool
LUB—79,543 gls, Oxonian, Antwerp
27,000 gls, Westernland, Liverpool
9,292 gls, Maryland, London
100,000 gls, St Leonards, Hamburg
2,500 gls, Lodovica, Trieste
42,500 gls, Manchester Commerce, Manchester
55,000 gls, Etonian, Antwerp
90,000 gls, Noordland, Liverpool
225,000 gls, Canadia, Rotterdam
MINERAL COLZA—5,093 gls, Oxonian, Atwp
OLEOMARGARINE—175 tcs, Maryland, Londn
111,850 lbs, 654 tcs, Canadia, Rotterdam
PAINT—5 bbls, Lucerne, Hull
SOAP—6 bbls, Oxonian, Antwerp
1,250 bxs, Westernland, Liverpool
3,000 bxs, Maryland, London
750 bxs, Carthagenian, Glasgow
1,250 bxs, Noordland, Liverpool
STARCH—200 bgs, Oxonian, Antwerp
TALLOW—380 tcs, Westernland, Liverpool
WAX, PAR—229 bbls, Westernland, Liverpool
1,183 bbls, Maryland, London
ZINC DROSS—145 bbls, Maryland, London

Baltimore Exports.

BARK EXT—5 bbls, Albingia, Hamburg
CARBON BLACK—100 bbls, Main, Bremen
472 bbls, Almora, Glasgow
COPPER SULPHATE—251 bbls, Albingia, Hamburg
LINSEED MEAL—1,000 sks, Belfast, Belfast
OCHER—300 bbls, Almora, Glasgow
OIL CAKE—331 sks, America, London
LUB—120 bbls, Albingia, Hamburg
360 bbls, Main, Bremen
OLEO—445 tcs, America, London
250 tcs, Albingia, Hamburg
60 tcs, Main, Bremen
RED—298 bbls, Albingia, Hamburg
300 bbls, Main, Bremen
OLEOMARGARINE—150 tcs, America, London
380 tcs, Albingia, Hamburg
ROSIN—200 bbls, Almora, Glasgow
TALLOW—20 tcs, Albingia, Hamburg
TANKAGE—500 bgs, Belfast, Cardiff
WAX, PAR—445 bbls, America, London
250 bbls, Belfast, Belfast.

Galveston Exports.

COTTONSEED MEAL—4,730 sks, Wittekind, Bremen
1,752 sks, Iowa, Liverpool
OIL, COTTONSEED—2,606 bbls, Clara, Marseilles
3,532 bbls, Clara, Trieste
SOAP—100 bbls, Bernard, Liverpool

Newport News Exports.

OIL, COTTONSEED—3,593 bbls, Amsteldyk, Rotterdam

New Orleans Exports.

CALCIUM CARBIDE—20 drs, Imperator, Bluefields
COTTONSEED CAKE—1,988 sks, Nyassa, Glasgow
2,401 sks, Nyassa, Glasgow
5,859 sks, Civilian, Liverpool
GLUCOSE—60 bbls, Aristea, Trieste
GREASE—65 tcs, Excelsior, Havana
410 bbls, Aristea, Trieste
10 bbls, Aristea, Marseilles
OIL—21 bbls, Imperator, Bluefields
4 bbls, Anselm, Porto Cortes
2 bbls, Condor, Criba
COTTONSEED—930 bbls, Nyassa, Glasgow
135 bbls, Irishman, Bremen
90 bbls, British Prince, Rotterdam
4,260 bbls, Aristea, Trieste
4,750 bbls, Aristea, Marseilles
150 bbls, Ceria, Genoa
SOAP—165 bbls, Nyassa, Glasgow
STOCK—360 bbls, Nyassa, Glasgow
TALLOW—1,000 tcs, 1,000 hf bbls, Aristea, Trieste
1,644 tcs, Aristea, Marseilles

San Francisco Exports.

ACID—1 tank, City of Peking, Salvador
8 tanks, Falls of Clyde, Hilo
BEESWAX—2,007 lbs, City of Peking, Antwerp
BLUESTONE—22,000 lbs, City of Peking, Honduras
BORAX—180 lbs, Korea, Japan
24 lbs, Korea, Shanghai
CANDLE—7 bxs, City of Peking, Costa Rica
COPPERAS—1,063 lbs, City of Peking, Salvador
2,287 lbs, Senator, Br Columbia
FERTILIZER—1,292,878 lbs, Falls of Clyde, Hilo
GLUE—200 lbs, City of Peking, Nicaragua
GREASE—9,982 lbs, City of Peking, Honduras
1,794 lbs, Korea, Korea
9,819 lbs, Titania, Nanaimo
10 cs, Senator, Br Columbia
LEAD—700,572 lbs, City of Peking, New York
LICORICE—6,846 lbs, City of Peking, New York
LITHARGE—8 cs, Korea, Korea
OLEOMARGARINE—595 lbs, Korea, Japan
PETROLEUM JELLY—52 cs, Korea, Japan
PAINT—26 pkgs, City of Peking, Guatemala
4 pkgs, City of Peking, Csata Rica
3 pkgs, Umatilla, Br Columbia
19 pkgs, Archer, Honolulu
65 pkgs, Senator, Br Columbia
POTASH—2,000 lbs, City of Peking, Salvador
4,000 lbs, City of Peking, Costa Rica
QUICKSILVER—3 fsks, City of Peking, Costa Rica
140 fsks, Korea, Japan
RED LEAD—4 kgs, City of Peking, Guatemala
ROSIN—25 lbs, City of Peking, Salvador
SOAP—2,014 bxs, Korea, Shanghai
4 bxs, City of Peking, Guatemala
20 bxs, Korea, China
20 bxs, Korea, Singapore
20 bxs, Falls of Clyde, Hilo
150 bxs, Archer, Honolulu
514 bxs, Korea, Japan
STARCH—25 lbs, City of Peking, Salvador
1,344 lbs, Falls of Clyde, Hilo
48 lbs, Korea, Shanghai
160 lbs, Korea, China
271 lbs, Senator, Br Columbia
SULPHUR—5,000 lbs, City of Peking, Guatemala
TALLOW—8,874 lbs, City of Peking, Guatemala
3,461 lbs, City of Peking, Costa Rica
TAR—20 cs, 2 bbls, City of Peking, Guatemala
10 cs, City of Peking, Salvador
8 bbls, Senator, Br Columbia
VARNISH—50 gls, City of Peking, Mexico
90 gls, City of Peking, Salvador
WHITE LEAD—80 kgs, 22 cs, City of Peking, Guatemala
105 kgs, Falls of Clyde, Hilo
ZINC, DROSS—1,000 lbs, City of Peking, Salvador

CHARTERS.

Following is a list of vessels chartered at principal ports during the past week to convey products to or from American ports:—

LOGWOOD—Schr Henry Clausen, Jr, from Black River to Chester
Br schr Clarence A Shaffner, from Jacmel to No of Hatteras, p t
NITRATE—Br shp Hampton, from Chili to San Francisco, 9 s
PHOSPHATE—Br str Lady Gray, from Port Tampa to Continent, p t
Schr Calumet, from Port Tampa to Balto, $1.86
Dan str Cimbria, from Pt Tampa to Mediterranean, p t
Br str Anselma de Larrinaga, from Wilmington to Liverpool, p t
SULPHUR—Br sch Howard, from N Y to Chatam, $1.75
Str Howard, from Sicily to Portland, 7s

NEW YORK DOMESTIC RECEIPTS.

For week ending May 11.

ALCOHOL—5 bbls, Colonial Dist Co, E R R
70 bbls, 20 hf bbls, Rogers & P, L V R R
5 bbls, Nat'l Dist Co, W S R R
5 drs, order, F R L
25 bbls, Am Dist Co, W S R R
80 bbls, S Kraus & Bro, D, L & W R R
WOOD—96 bbls, 2 drs, W S Gray, F R L
13 bbls, order, F R L
BARYTES—742 bbls, order, O D S S L
BEESWAX—4 bbls, order, O D S S L
10 bbls, J Finnegan & Co, Galveston
CLAY—4,055 bgs, Owl Com'l Co, Jacksonville
911 bgs, Chesebrough Mfg Co, Jacksonville
300 bgs, Standard Oil Co, Jacksonville
18 cks, order, Charleston
464 sks, 18 cks, order, S S S L
COTTONSEED MEAL—5,000 sks, order, S S S L
FERTILIZERS—14 bgs, E Mortimer, Charleston
1,800 sks, export, O D S S L
GREASE—5 tcs, order, O D S S L
100 bbls, E Valk & Co, P R R
35 tcs, eport, L V R R
40 bbls, E S Kuh & Co, L V R R
12 bbls, export, D, L & W R R
100 bbls, Davis Oil Co, P R R
80 bbls, H W Calef, P R R
100 tcs, export, P R R
60 bbls, export, L V R R
70 tcs, Considtd Rend Co, L V R R
60 bbls, W D Vandenhove, P R R
GUANO—496 sks, Woodward & Co, Galveston

PANKREON, OXALIC ACID, TRIFERROL, LYGOSINE
GERMAN CARBOLIC ACID, GENOFORM.
C. BISCHOFF & CO., 88 Park Place, . . NEW YORK.

HIGHWINES—60 bbls, Colonial Dist Co, E R R
80 bbls, Union Distg Co, L V R R
245 bbls, Colonl Dist Co, D, L & W R R
115 bbls, Natl Dist Co, W S R R
173 bbls, order, D, L & W R R
320 bbls, E Heller & Co, D, L & W R R
86 bbls, E Heller & Co, D, L & W R R
255 bbls, J Marcus, D, L, & W R R
80 bbls, Globe Dist Co, D, L & W R R
53 bbls, Am Dist Co, W S R R
80 bbls, E J Markey, D, L & W R R
105 bbls, Colonial Dist Co, E R R
80 bbls, J Loefler, D, L, & W R R
80 bbls, S Kraus & Bro, D, L & W R R
55 bbls, United W & T Co, D, L & W R R
80 bbls, H Groeger & Co, D, L & W R R

KAOLIN—184 cks, Atlantic Co, Galveston

LEAD—2,750 pigs, Am Metal Co, Galveston

MUSTARD SEED—326 sks, Materne & H, Galveston

OCHER—112 bbls, order, S S S L

OIL, CAKE—1,601 sks, export, L V R R
5,340 sks, exports, D, L & W R R
250 sks, order, J C R R
1,320 sks, export, E R R

COTTONSEED—2,603 bbls, order, J C R R
50 cs, 2,000 bbls, order, S S S L
1,024 bbls, Hopkins, D & Co, B & O R R
26 tank cars, Swift & Co, E R R
716 bbls, order, O D S S L
342 bbls, export, B & O R R
413 bbls, Williams & F Co, B & O R R
325 bbls, Aspegren & Co, P R R
80 bbls, export, B & O R R
500 bbls, Am Ex Natl Bk, Brunswick
500 bbls, Hopkins, D & Co, Charleston

LINSEED—105 bbls, T R Bagot, W S R R
60 bbls, Macy & D, P R R

LUB—61 bbls, S E Heyman & Co, P R R
120 bbls, export, P R R
184 bbls, export, W S R R
262 bbls, order, J C R R
120 bbls, order, P R R
60 bbls, Lunham & M, P R R
60 bbls, A H Post, P R R
61 bbls, Cook & Co, P R R

MEAL—750 sks, export, W S R R

OLEO—1,511 tcs, export, L V R R
450 tcs, export, W S R R
199 bbls, export, B & O R R
70 tcs, export, P R R
75 tcs, Strong & T, P R R

ROSIN—60 bbls, order, S S S L

OLEO STOCK—75 tss, export, P R R

OLEOMARGARINE—225 tcs, export, P R R

PITCH—25 bbls, order, Wilmington

POTASH—5 cks, order, H R R
11 cks, order, L V R R

ROSIN—156 bbls, order, O D S S L
1,250 bbls, order, S S S L
2,320 bbls, S P Shotter, Jacksonville
1,800 bbls, Paterson Dr Co, Jacksonville
100 bbls, order, Jacksonville
187 bbls, Meichers & M, Georgetown
212 bbls, Tolar, H & Co, Georgetown
100 bbls, Paterson D & Co, Wilmington
8 bbls, Baily & M, Wilmington
39 bbls, order, Wilmington
557 bbls, export, Mobile
100 bbls, order, Brunswick
1,400 bbls, Paterson D & Co, Brunswick
25 bbls, Hoople & And, Brunswick
61 bbls, Tolar, H & Co, Brunswick

SHEEP DIP—30 hf bbls, export, O D S S L

SOAP STOCK—120 tcs, E Volk & Co, Galveston
125 bbls, order, S S S L

SPELTER—1,038 slabs, order, O D S S L
721 slabs, Hendricks Bros, D, L & W R R
884 slabs, Am S & R Co, Galveston
50,000 lbs, Dickerson, V & Co, D, L & W R R

SPONGE—12 bls, A Moses, Son & Co, Galveston
103 bls, Vollman Sponge Co, Galveston
21 bls, order, S S S L
66 bls, Lasker & Bernstein, Savannah

STEARINE—81 tcs, export, L V R R

TALLOW—77 pkgs, 42 bbls, order, O D S S L
75 bbls, W Flaccus & Co, P R R
145 pkgs, B T Babbitt, P R R
140 tcs, Cons Rendg Co, H R R
20 bbls, W E Klein, E R R
125 bbls, E Valk & Co, F R L
75 tcs, H W Calef, P R R
54 pkgs, B T Babbitt, D, L & W R R
11 tcs, Welch, H & C, D, L & W R R
2 bxs, Armour & Co, P R R
500 tcs, E Valk & Co, P R R
100 bbls, 100 tcs, J Jackson, P R R
1 car, 236 bbls, W D Vandenhove, P R R
22 bbls, W D Vandenhove, F R L
20 bbls, E J Fuchs, D, L & W R R
22 bbls, H W Calef, B & O R R
23 bbls, W D Vandenhove, W S R R
75 tcs, H W Calef, F R L
4 bbls, order, L V R R
24 bbls, H W Calef, L V R R
200 bbls, order, J C R R

TAR—436 bbls, order, O D S S L
12 bbls, Tolar, H & Co, Georgetown
50 bbls, Paterson, D & Co, Wilmington
220 bbls, order, Wilmington
100 bbls, order, Mobile

TURPENTINE—8 bbls, order, O D S S L
349 bbls, order, S S S L
1,100 bbls, Paterson, D & Co, Jacksonville
150 bbls, F W Blossom, Jacksonville
325 bbls, C King, Jacksonville
91 bbls, order, Jacksonville
100 bbls, Brooklyn Var Co, Georgetown
43 bbls, Meichers & M, Georgetown
45 bbls, Tolar, H & Co, Georgetown
55 bbls, order, Wilmington
5 bbls, Baily & M, Wilmington
51 bbls, Blossom & Co, Wilmington
15 bbls, Paterson, D & Co, Wilmington
40 bbls, M W Larendon, Wilmington
5 bbls, Tolar, H & Co, Wilmington
24 bbls, Tolar, H & Co, Brunswick
1 bbl, V W Tyler, Jacksonville
100 bbls, S P Shottter, Jacksonville

Total Domestic Receipts.

At New York for week ending May 11, 1905.

	For week.	Since Jan. 1.
Alcohol, bbls	190	1,562
Beeswax, pkgs	14	182
Boneblack	....	1,668
Borax	....	713
Cottonseed, bgs	....	22
Ashes, bgs	....	979
Cake, bgs	....	.....
Meal, bgs	5,000	34,189
Flaxseed, bush	....	276,000
Grease	751	278,105
Highwines, bbls	2,003	29,894
Lead, pigs	2,750	88,556
Mustard, seed	....	712
Oil, cake, bgs	8,511	265,396
Cottonseed, bbls	12,313	246,828
Fish, bbls	....	.....
Lard, bbls	25	683
Lubricating, bbls	928	14,758
Oleo, stock, tcs	75	75
Pitch, bbls	25	918
Quicksilver, flasks	....	2,181
Rosin, bbls	8,313	133,457
Soap stock, bbls	245	1,912
Spelter	2,643	53,663
Sponges, bls	202	2,905
Stearine, pkgs	81	4,104
Tallow	2,152	21,268
Tar, bbls	818	14,164
Turpentine, crude, bbls	....	373
Spirits, bbls	2,507	38,123

BOSTON DOMESTIC RECEIPTS.

Week ending May 10.

CHINA CLAY—22 cks, Charleston
COTTONSEED MEAL—20 tons
GREASE—258 bbls
TALLOW—287 bbls

New Orleans Domestic Receipts.

Week ending May 9.

COTTONSEED—1,203 sks, America, Carriola
224 sks, American, Vicksburg
278 sks, St James, Bayon Sara
16 sks, Wm Garig, Melville
OIL, COTTONSEED—126 bbls, America, Carriola

San Francisco Domestic Receipts.

Week ending April. 29.

OIL—397 cs, San Jose, New York.
VARNISH—100 gls, San Jose, New York.

Savannah Domestic Receipts.

Week ending May 9.

ROSIN—8,619 bbls
TURPENTINE—4,414 bbls

Wilmington, N. C., Domestic Receipts

Week ending May 9.

ROSIN—541 bbls
TAR—638 bbls
TURPENTINE—100 cks
CRUDE—239 bbls

TOTAL IMPORTS AT NEW YORK.

	Quantity.	Value.
Glass, Plate	126	$6,003
Window	1,254	2,192
L. G. Plates	42	4,527
Arsenic	244	3,386
Acid, benzoic	66	3,749
Carbolic	96	983
Citric	77	1,132
Oxalic	75	2,694
Other	19	411
Aniline Colors	1,822	107,627
Ammonia Carb	25	825
Sal	10	539
Sulph	1	153
Argols	1,645	52,913
Albumen	51	3,387
Alizarine	152	10,373
Asst.	30	477
Balsam copaiba	107	2,270
Tolu	32	550
Other	6	200
Barytes Carb	400	925
Sulph	442	1,070
Bleach powder	746	6,543
Bronze powder	....	5,355
Borax	1	12
Buchu leaves	52	1,681
Butter, cocoa	190	8,123
Chalk	....	4,875
Chem. salts	223	3,743
Cobalt	5	1,013
Cutch	320	1,308
Cuttlefish bone	14	36
Dragon's blood	18	1,399
Dextrine	600	3,808
Dyewood Ext.	30	1,384
Ergot	15	798
Fish sounds	5	371
Flowers, unsaponified	64	702
Fuller's earth	200	112
Gambier	1,840	15,498
Gelatine	125	3,478
Glycerine	375	80,297
Gum arabic	389	6,770
Asafoetida	4	117
Chicle	631	20,392
Copal	2,539	29,992
Camphor	3,041	17,031
Damar	1,160	19,064
Kowrie	205	3,958
Licorice	265	7,921
Olibanum	160	1,433
Shellac	1,608	76,024
Senegal	10	232
Tragacanth	406	28,393
Other	27	1,607
Glue	1,504	23,527
Indigo	153	14,493
Carmine	12	1,084
Auxiliary	115	8,400
Extract	5	120
Iodine	112	35,508
Isinglass	4	716
Leeches	10	93
Manuring salt	....	24,408
Mica	93	5,696
Myrabolones	683	1,217
Nitrate Lead	60	1,202
Nutgalls	268	6,008
Nux vomica	1,093	3,842
Orchilla liquor	15	651
Oxide zinc	179	2,940
Oil, almonds	7	113
Anise	20	1,229
Camphor	500	2,353
Caraway	10	713
Cassia	10	433
Citronella	60	10,958
Cod	461	10,293
Cocoanut	211	17,633
Creosote	50	126
Fusel	112	9,709
Geranium	2	286
Haarlem	100	1,176
Linseed	50	720
Lavender	39	6,181
Lemon	44	1,035
Myrbane	55	722
Nut	400	6,221
Olive	2,284	16,483
Palm	3	142
Rapeseed	434	7,602
Rose	20	42,375
Rosemary	1	32
Sesame	35	992
Sod	60	598
Thyme	22	1,845
Wood	100	136
Other Ess.	39	3,202
All other	5	69
Opium	93	25,565
Prep. of	8	2,630
Paints, unsaponified	....	17,509
Berlin blue	25	508
Blanc fixe	98	1,004
Chrome yellow	18	599
Colcothar	27	135
Drop black	14	171
Iron oxide	11	176
Lithopone	36	1,608
Ocher	165	1,179
Red lead	20	1,436
Sienna	2	29
Venetian red	12	140
Vermilion	1	13
White lead	602	4,224
Pitch	7	84
Potash Carb	6	273
Caustic	155	3,183
Prussiate	16	1,359
Potato starch	300	1,790
Plumbago	1,872	31,622
Quinine	37	3,430
Rose leaves	2	80
Root, ipecac	6	556
Jalap	32	297
Licorice	4,323	18,586
Rhubard	13	394
Sarsaparilla	140	1,912
Other	84	628
Salt cake	15	699
Santonine	2	1,499
Saffron Ext.	5	1,601
Saltpeter	916	5,828
Senna	55	1,572
Soda ash	635	3,543
Bicarb.	54	122
Sulphate	17	127
Sponges	211	8,326
Stearine	27	303
Sulphur	200	715
Sulphur ore	....	15,005
Sumac	1,303	3,002
Ext.	62	1,048
Talc	200	380
Terra alba	30	113
Ultramarine	63	953
Vanilla beans	71	20,755
Varnish	56	2,860
Venice turpte	153	2,242
Wool grease	150	1,755
Other	....	72,845
Glue stock	....	11,549
Rennets	38	10,639
Prep.	6	376
Alcohol	6	124
Gold leaf	1	207
Spelter	154,322	8,394
Cassia	5,572	15,021
Chillies	1,415	4,299
Cloves	700	3,107
Ginger	1,229	9,986
Mace	85	1,497
Nutmegs	208	2,418
Pepper	6,762	66,744
Pimento	294	913
Corkwood	....	3,173
Dyewood	....	21,803
Fustic	....	1,164
Lignum vitae	....	1,405
Candles	....	64
Clay	....	5,500
Gelatine, mfrs. of	....	252
Guano	....	1,251
Musk	3	2,101
Seed, Annato	6	79
Canary	652	2,760
Cardamom	1	19
Hemp	250	1,157
Mustard	250	1,065
Poppy	200	790
Rape	160	852
Other	....	3,903
Soap, Castile	111	953
Other	28	2,685
Stock	124	2,989
Stone, pumice	....	343
Tapioca flour	3,058	8,697
Wax	....	14,278

The Determination of Formaldehyde

BY R. H. WILLIAMS.

The work herein described consists of a comparison and criticism of the four methods most generally recommended for the determination of formaldehyde—Legler method, hydrogen peroxide method, iodimetric method, and potassium cyanide method. Having no means of obtaining formaldehyde in a pure, anhydrous state it became necessary to study the accuracy of these methods by indirect and comparative, rather than by direct and absolute tests. First, the conditions usually given for these methods were followed, and then such modifications tried as were believed to give increased accuracy or greater rapidity, the ultimate object being to determine, if possible, the best conditions for each method, and then to form a judgment as to their comparative merit.

Legler Method.—The conditions maintained were essentially those given by Smith. Thirty determinations of formaldehyde were made under these conditions variously modified, and the results obtained established the following facts:—That the best end point is obtained when a rather dilute solution of formaldehyde is taken, and N/5 reagents are used. That it is best to carry on the reaction in small flasks or bottles, thus minimizing the free space over the reacting liquids. That, after standing twenty-four hours, the maximum absorption takes place when the excess of ammonia is 1 c.c. or more, and when the concentration of the same is not less than N/8. The results from six additional determinations, made in a solution of formaldehyde of approximately 2 per cent., and calculated on the original solution, are as follows:—

	Per cent.	Per cent.	Per cent
After standing 24 hours..	34.76	34.84	34.88
After standing 48 hours..	34.96	34.82	....
After standing 9 days....	34.95	....	...

Six determinations were made, using 2 to 3 grams of the orginal solution (Kahlbaum's formaldehyde) in each case. The results are:—34.75, 35.06, 34.99, 35.02, 34.90, 34.63 per cent.

While the results are in accord with those previously obtained, the end-point was not as satisfactory as when the more dilute solution was used, which accounts for the greater variation in the results

The best conditions for this method, are as follows:—Weigh into a 250 c.c. glass stoppered flask, 15 grams of the commercial formalin, and dilute to the mark. This solution will contain approximately 2 per cent. of formaldehyde. After determining its acidity in terms of the standard ammonia, place 10 c.c. in a small bottle or flask, provided with a well-fitting stopper, and add 40 to 50 c.c. of N/5 ammonia solution. Allow to stand for twenty-four hours, then titrate the excess of ammonia with N/5 acid, sulphuric or hydrochloric, using not more than 2 drops of 0.1 per cent. rosolic acid solution as indicator.

Hydrogen Peroxide Method.—The first determinations were made under the con-

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ditions given by Smith with these modifications—about 2 grams of Kahlbaum's formaldehyde were taken, while the concentrations of the acid and alkaline solutions were respectively normal and 1½ normal. Low results were obtained, due, no doubt, to the rather unusual temperature conditions, and the less concentrated alkaline reagent. The temperature of the room in which this work was done rarely exceeded 15 deg. C., and under these conditions, the time usually allowed the reaction (ten to fifteen minutes), was not sufficient to insure complete oxidation.

Four additional determinations were made, and in each case, the flasks were well shaken several times, and allowed to stand until the escape of gas practically ceased. The time required was about one hour. The results are:—35.82, 35.92, 35.74, 35.78 per cent.

The best conditions for this method are as follows: Weigh portions of 2 grams each of formalin in 250 c.c. Erlenmeyer glass-stoppered flasks, and add to each 30-40 c.c. standard sodium hydroxide, 1 to 2 normal, preferably normal. Add cautiously from a pipette, 50 c.c. of hydrogen peroxide solution. Shake at intervals of three to five minutes for fifteen minutes to one hour, depending upon temperature and concentration of reagents, then titrate the excess of sodium hydroxide with sulphuric acid, using 8 to 12 drops of litmus as indicator. The acidity of the hydrogen peroxide and formalin must be determined, and the figures obtained enter into the calculation.

Iodimetric Method.—The conditions as given by Smith were followed. The results of six determinations are:—35.57, 35.44, 35.71, 35.70, 35.64, 35.70 per cent.

Six additional determinations were made to test the influence on the results of different amounts of iodine in excess. The results are;—

5 cc. I. in excess. Per cent.	25 cc. I. in excess. Per cent.	35 cc. I. in excess. Per cent.
35.49	35.51	35.53
35.67	35.69	35.77

Potassium Cyanide Method.—The conditions followed were essentially those given by Romijn. The only modifications were such as affected the volume and concentration of some of the reagents.

Place 15 c.c. N/10 silver nitrate in a 100 c.c. flask and acidify with 8 to 10 drops of 50 per cent. nitric acid. Add 10 c.c. of a solution of potassium cyanide approximately N/10, dilute to the mark, mix thoroughly and filter. Titrate 50 c.c. of the filtrate with N/40 ammonium sulphocyanate for excess of silver nitrate, using 5 c.c. of a saturated solution of ferric alum as indicator. From the data thus obtained, the ratio between the potassium cyanide and silver nitrate solutions can be calculated. Another portion of the N/10 silver solution, 10 to 20 c.c., is acidified as before, and then added to 30 to 40 c.c. of the potassium cyanide solution, which has previously been treated with 10 c.c. of the formaldehyde solution (about 1 per cent.). After shaking thoroughly, the excess of the silver nitrate solution is determined in an aliquot part of the filtrate, as before. The percentage of formaldehyde may be found from the following formula:—

$$\frac{\text{c.c. } AgNO_3 \text{ [Equiv. to c.c. of KCN absorbed]} \times 0.003 \times 100}{\text{weight of } CH_2O \text{ taken}} = \%$$

Six determinations were made, yielding the following percentages:—35.15, 35.06, 35.20, 35.01,35.21, 35.07.

Discussion of Results.—From a review of the percentages thus far obtained, it was observed that the two oxidation methods gave closely agreeing results, and the same was true of the condensation methods, yet the former gave results a per cent. higher than the latter. It was thought that the variation might be due either to the presence of some impurity capable of oxidation, or to a polymerized form of formaldehyde, which affected unequally the two types of methods. As Kahlbaum's formaldehyde had been used exclusively in these determinations, it was thought that a set of estimations of formaldehyde made in commercial formalin, and another in paraformaldehyde, would clear up the point in question. A sample, largely paraformaldehyde, was obtained from commercial formalin, being the residual liquid after distilling off two-thirds of the original volume.

The averages of from two to ten determinations are given below:—

Formaldehyde used.	Methods—Legler.	H_2O_2.	Iodimetric.	KCN.
Kahlbaum's	34.87	35.82	35.66	35.12
Commercial formalin	35.06	36.14	36.15	35.24
Largely paraformaldehyde	49.45	51.06	51.24	49.76

The discrepancies between the results obtained from the oxidation and condensation methods are the same in character, whatever the nature of the sample taken. The extent of the discrepancy is greatest in the case of the largely polymerized form, which is easily explained by the increased concentration. Since the variation cannot be explained by the presence of either impurities or paraformaldehyde, it was thought that in the case of the Legler method, the low results might be due to the instability of hexamethylenetetramine in the presence of a strong acid. Should compounds of an alkaline nature arise in this way, low results would be inevitable.

Eight determinations were made, acetic acid being used to determine the excess of ammonia in four of these, and sulphuric acid in the others. The results are:—

With acetic acid.		With sulphuric acid	
34.99	34.89	34.79	34.86
34.78	34.95	34.72	34.91

It should be stated that, in all this work where the excess of ammonia was titrated with acid, the neutral point was taken to be that at which the last trace of pink disappeared. When such small quantities of rosolic acid are used, the liquid is practically colorless at this point. Had the first color change been taken as the end-point, results more nearly in accord with those of the oxidation methods would have been obtained.

The applicability of these methods to the determination of formaldehyde in the presence of other substances was studied. Tests were made with ethyl alcohol, paraldehyde, acetaldehyde, acetone and methyl alcohol, and carried out in the following manner. Three drops of the substance, whose influence was to be tested, were added, with the prescribed amount of formaldehyde in each case, and the latter determined according to the conditions given. Where the substance added had no influence, the result is given as "normal," otherwise the actual percentage is given:—

Method.	Formaldehyde. Per cent.	Substance added.—Ethyl alcohol.	Substance added.—Paraldehyde.
Legler	34.87	Normal	Normal
H_2O_2	35.82	Normal	Normal
Iodimetric	35.66	36.4	36.5
KCN	35.12	Normal	Normal

Method.	Acetaldehyde.	Substance added.—Acetone.	Substance added.—Methyl alcohol.
Legler	47.8	Normal	Normal
H_2O_2	38.6	Normal	Normal
Iodimetric	39.6	50+	36.49
KCN	35.30	Normal	Normal

(1) The iodimetric method is rapid and accurate; and preferable for pure, dilute solutions.

(2) The hydrogen peroxide method is the most satisfactory for strong, impure solutions. The time necessary for a complete oxidation is widely variable, depending upon concentration and temperature.

(3) The potassium cyanide method is recommended for dilute, impure solutions. The results are lower than those obtained by the oxidation methods.

(4) The end-point in the Legler method is not satisfactory, which fact, as well as the low results, must be attributed to causes other than the influence of strong acids on hexamethylenetetramine.

(5) Paraformaldehyde, when present, counts as formaldehyde.

(6) The discrepancy in the results obtained by the two different types of methods is due to conditions inherent in the methods themselves—not to the presence of impurities or to a polymerized form of formaldehyde. Apparently, either the condensation reactions are not complete, or a small part of the formic acid, produced by the oxidation reactions, is oxidized farther, giving high results.—Journal Am. Chemical Society.

Imports at New York During 1905.

The following is a partial list of the imports at the port of New York from the first of the current year to April 1. The quantities are in pounds, except as otherwise stated:—

Acid, Boracic	96,552
Albumen, Blood	29,621
Egg	82,137
Alcohol ..... gals.	6,692
Alumina, Sulph	56,165
Ammonia, Carb	78,560
Sulph	327,403
Argols	5,170,841
Berlin Blue	70,862
Blanc Fixe	301,043
Bleaching Powder	5,466,442
Brimstone ..... tons.	9,756
Bristles	247,204
Bronze Powder	451,761
Caffeine	200
Calomel	1,100
Camphor, Crude	354,123
Castor Seed ..... bush.	17,629
China Clay ..... tons.	3,705
Cinchona Bark	630,262
Cobalt Oxide	8,000
Coca Leaves	345,812
Cochineal	11,103
Cutch	173,136
Dextrine	715,402
Dyewood Extract	211,723
Ether	747
Ethyl Chlo	203
Fuller's Earth ..... tons	1,001
Gambier	11,426,204
Gelatine	92,700
Glycerine, Crude	5,681,735
Grease, Wool	1,248,791
Gum Chicle	800,265
Indigo Extract	20,712
Iodine	18,985
Licorice Paste	91,862
Licorice Root	17,075,557
Linseed ..... bush.	4,417
Lithopone	192,064
Logwood-Extract	449,007
Manure Salt	444,400
Mica	40,250
Menthol	36,578
Ocher	1,638,137
Oil, Cod ..... gals.	57,367
Codliver ..... gals.	21,330
Fusel	854,946
Rapeseed ..... gals.	111,118
Opium	45,685
Orange and Red Lead	200,163
Pitch, Burgundy	34,100
Potash, Carb	2,250,661
Muri	8,573,900
Pruss	237,600
Sulph	2,046,907
Potato Flour and Starch	294,121
Quebracho Extract	9,964,171
Quinine ..... ozs.	423,500
Saffron	2,822
Sage	115,699
Sarsaparilla	145,155
Senna	198,808
Sienna	332,563
Soap, Castile	603,224
Soda, Ash	1,483,632
Bicarb	2,506
Caustic	278,720
Nitrate ..... qtls.	287,860
Nitrite	153,301
Sumac, Ground	2,531,232
Ext	207,682
Talc	2,450,361
Terra Alba ..... tons.	75
Ultramarine	218,989
Umber	380,419
Wax, Carnauba	123,931
Mineral	874,307

FOREIGN MAILS.

Foreign mails for the week ending May 20, 1905, will close (promply in all cases), at the General Post Office as follows:—Registered and Parcels-Post Mails close one hour earlier than closing time shown below.

Parcels-Post Mails for Great Britain and Ireland are dispatched by the White Star line on Wednesdays and by the American line on Saturday. An additional dispatch is made by the Cunard line when a Cunard steamer sails on Saturday later than the American line steamer the same day. The Parcels-Post mails close one hour before the regular mails. Parcels-Post Mails for Germany close at 5 p. m. May 15 and 24.

Regular and supplementary mails close at foreign station (corner of West and Morton streets), half hour later than closing time shown below (except that supplementary mails for Europe and Central America, via Colon, close one hour later at foreign station).

TRANSATLANTIC MAILS.

TUESDAY (16).—At 9.30 a. m. (supplementary 11 a. m.) for Europe, per s. s. Kaiser Wilhelm II., via Plymouth, Cherbourg and Bremen.

WEDNESDAY (17).—At 6.30 a. m. for Europe, per s. s. Majestic, via Queenstown and Liverpool; at 7.30 a. m. for Netherlands direct (specially addressed only), per s. s. Rotterdam.

THURSDAY (18).—At 7 a. m. for France, Switzerland, Italy, Spain, Portugal, Turkey, Egypt, Greece and British India, per s. s. La Savoie, via Havre (also other parts of Europe when specially addressed for this steamers).

SATURDAY (20).—At 6 a. m. for Europe, per s. s St. Louis, via Plymouth and Cherbourg (including Liverpool, Scotland and Ireland when specially addressed for this steamer); at 7.30 a. m. for Scotland direct (specially addressed only), per s. s. Columbia; at 8.30 a. m. for Belgium Parcels-Post Mails, per s. s. Vaderland (also regular mail for Belgium when specially addressed for this steamer); at 8.30 for Italy direct (specially addressed only), per s. s. Koenigin Luise; at 12.30 p. m. (supplementary 2 p. m.), for Europe, per s. s. Lucania, via Queenstown and Liverpool.

MAILS FOR SOUTH AND CENTRAL AMERICA, WEST INDIES, ETC.

MONDAY (15).—At 12 m. for Northern Brazil, per s. s. Horatio, via Para and Manoas; at 12 m. for Argentine, Uruguay and Paraguay, per s. s. Hazelwood; at 7 p. m. for Newfoundland, per s. s. Laurentian, from Philadelphia.

TUESDAY (16).—At 9.30 a. m. (supplementary 10.30 a. m.) for Nicaragua (except East Coast), Honduras (except East Coast), Salvador, Panama, Canal Zone, Cauca Department of Colombia, Ecuador, Peru, Bolivia and Chili, per s. s. Seguranca, via Colon (also Guatemala when specially addressed for this steamer).

WEDNESDAY (17).—At 9.30 a. m. (supplementary 10.30 a. m.) for Inagua, Haiti and Magdanela Department of Colombia, per s. s. Aiene (including Cape Haiti, Port de Paix, Canal Zone and Panama when specially addressed for this steamer); at 12 m. for Guantanamo and Santiago (specially addressed only), per s. s. Cienfuegos.

THURSDAY (18).—At 8 a. m. for Bermuda, per s. s. Bermudian; at 9 a. m. for Cuba, Yucatan and Campeche, per s. s. Havana (also other parts of Mexico when specially addressed for this steamer); at 12 m. (supplementary 12.30 p. m.) for Bahamas, per s. s. Santiago (also Mexico, via Tampico, when specially addressed for this steamer).

FRIDAY (19).—At 12 m. for St. Kitts, Nevis, St. Eustatius, St. Martins and Guiana, per s. s. Uller; at 12 m. for Brazil, per s. s. British Prince, via Pernambuco, Rio Janeiro and Santos (including Northern Brazil, Uruguay and Paraguay when specially addressed for this steamer).

SATURDAY (20).—At 8.30 a. m. (supplementary 9.30 a. m.) for Curacao and Venezuela, per s. s. Maracaibo (also Colombia, via Curacao, when specially addressed for this steamer); at 9 a. m. for Porto Rico, per s. s. Ponce, via San Juan; at 9.30 a. m. (supplementary 10.30 a. m.) for Fortune Island, Jamaic and Colombia, except Cauca and Magdalena Departments, per s. s. Alleghany (also Costa Rica, via Limon, when specially addressed for this steamer); at 10 a. m. for Cuba, per s. s. Mexico, via Havana; at 10 a. m. for Grenada, St. Vincent, Trinidad, Ciudad Bolivar and Guiana, per s. s. Grenada; at 12 m. for Argentine, Uruguay and Paraguay, per s. s. Sailor Prince.

NOTICE.—Five cents per half ounce in addition to the regular postage, must be prepaid on all letters forwarded by the supplementary mails, and letters deposited in the drops marked "Letters for Foreign Countries," after the closing of the regular mail, for dispatch by a particular vessel, will not be so forwarded unless such additional postage is fully prepaid thereon by stamps. Supplementary transatlantic mails are also opened on the piers of the American, English and French steamers, whenever the sailings occur at 9.00 a. m. or later; and late mail may be deposited in the mail boxes on the piers of the German lines sailing from Hoboken. The mails on the piers open one hour and a half before sailing time, and close ten minutes before sailing time. Only regular postage (letters five cents a half ounce) is required on articles mailed on the piers of the American, White Star and German (Sea Post) steamers; double postage (letters ten cents a half ounce) on other lines.

MAILS FORWARDED OVERLAND, ETC., EXCEPT TRANSPACIFIC.

Mails (except Jamaica and Bahamas) are forwarded daily to ports of sailing. The connecting mails close at the General Post Office, New York, as follows:—

CUBA, via Port Tampa, at 4.30 a. m. Monday, Wednesday and Saturday. (Also from New York, Thursday and Saturday. See above.)

MEXICO CITY, overland, at 1.30 p. m. and 10.30 p. m. daily, except Sundays; Sunday at 1.00 p. m. and 10.30 p. m.

NEWFOUNDLAND (except Parcels-Post Mails), via North Sydney, at 7 p. m. Monday, Wednesday and Saturday. (Also occasionally from New York and Philadelphia. See above.)

MIQUELON, via Boston and North Sydney, at 6.30 p. m. every other Sunday (May 21; June 4 and 18, etc.).

JAMAICA, via Boston, at 7.00 p. m. Tuesday and Friday. (Also from New York on Saturday. See above.)

COSTA RICA, via New Orleans, at §10.30 p. m. Tuesday.

BRITISH HONDURAS, HONDURAS (East Coast) and GUATEMALA, via New Orleans, at §10.30 p. m. Monday. (West Coast of Honduras is dispatched from New York via Panama. See above.)

NICARAGUA (East Coast), via New Orleans, at §10.30 p. m. Wednesday. (West Coast of Nicaragua is dispatched from New York, via Panama. See above.)

PANAMA and CANAL ZONE, via New Orleans, at §10.30 p. m., Sunday. (After 10.30 p. m. Sunday and until sailing of New York steamer, mail for Panama and Canal Zone is held for the New York steamer. See above.)

§REGISTERED MAIL for overland dispatches closes at 6.00 p. m. previous day.

TRANSPACIFIC MAILS FORWARDED OVERLAND DAILY.

The schedule of closing of transpacific mails is arranged on the presumption of their uninterrupted overland transit to port of sailing. The final connecting mails (except registered transpacific mails dispatched via Vancouver, Victoria, Tacoma or Seattle, which close at 6 p. m. previous day), close at the General Post Office, New York, as follows:—

Japan (except Parcels-Post Mails), Korea, China and Philippine Islands, via Vancouver and Victoria, B. C., close at 6 p. m. May 16 for dispatch per s. s. Empress of India.

Fiji Islands, Australia (except West) and New Caledonia, via Vancouver and Victoria, B. C., close at 6 p. m. May 20 for dispatch per s. s. Manuka.

Tahiti and Marquesas Islands, via San Francisco, close at 6 p. m. May 21 for dispatch per s. s. Mariposa.

Japan, Korea, China and specially addressed mail for the Philippine Islands, via Seattle, close at 6 p. m. May 21 for dispatch per s. s. Shawmut.

Hawaii, Japan, Korea, China and specially addressed mail for the Philippine Islands, via San Francisco, close at 6 p. m. May 22 for dispatch per s. s. Siberia.

Hawaii, via San Francisco, close at 6 p. m. May 22 for dispatch per s. s. Alameda.

Philippine Islands and Guam, via San Francisco, close at 6 p. m. May 26 for dispatch per United States transport.

Hawaii, Japan, Korea, China and Philippine Islands, via San Francisco, close at 6 p. m. June 2 for dispatch per s. s. Mongolia.

New Zealand, Australia (except West), New Caledonia, Samoa, Hawaii and Fiji Islands, via San Francisco, close at 6 p. m. June 3 for dispatch per s. s. Sonoma. (If the Cunard steamer carrying the British mail for New Zealand does not arrive in time to connect with this dispatch, extra mails—closing at 5.30 a. m., 9.30 a. m. and 6 p. m.; Sundays at 4.30 a. m., 9 a. m. and 6 p. m.—will be made up and forwarded until the arrival of the Cunard steamer.)

Manchuria (except Mukden, Newchwang and Port Arthur) and Eastern Siberia is at present forwarded via Russia.

NOTE.—Unless otherwise addressed, West Australia is forwarded via Europe; New Zealand via San Francisco, and certain places in the Chinese Province of Yunnan, via British India—the quickest routes. Philippines specially addressed "via Europe" must be fully prepaid at the foreign rates. Hawaii is forwarded via San Francisco exclusively.

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CHEMICAL MARKET.

NOTE.—Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures. Complete prices current will be found on page 33.

Saturday Noon, May 13, 1905.

Trade during the past week in the various chemicals has been rather quiet, but not more so than other lines of trade. Alkali and caustic are both moving fairly well into channels of consumption, with additional sales for forward delivery. Bleaching powder is still in light supply on the spot, with more inquiry for June-August arrival. There have been few arrivals of domestic brimstone, all of which goes direct into consumption. Blue vitriol and arsenic are both easy, with intimations that prices may be reduced. Oxalic acid is quiet, while cream of tartar and tartaric acid are both firmer, with tendency to a higher range of value. The other light chemicals and acids are all meeting with the usual seasonable demand, with few changes to note, as detailed below. Late mail advices from Liverpool say:—

The demand for heavy chemicals for the open markets continues quiet, while at the same time prices are steadily maintained. Soda ash is firm at the usual range, as to destination. For tierces, nearest range may be called about as follows:—Leblanc ash—48 per cent., £5@£5 10s.; 58 per cent., £5 10s.@£6 per ton. Ammonia ash—48 per cent., £4 5s.@£4 10s.; 58 per cent., £4 10s.@£4 15s. per ton. Bags, 5s. per ton under price for tierces. Soda crystals are in fair jobbing request at, generally, £3 7s. 6d. per ton, less 5 per cent., for barrels, or 7s. less for bags, with special terms for a few favored markets. Caustic soda is in quiet demand at late rates, viz:—Sixty per cent., £8 15s.; 70 per cent., £9 15s.; 74 per cent., £10 5s.; 76 per cent., £10 10s. per ton, net cash. Special quotations for export to the Continent and a few other export quarters. Bleaching powder is in limited export request, and for hardwood prices are nominally quoted at from £4 15s.@£5 per ton, net cash, as to market. Chlorate of potash is quiet, but steady, quotations ranging from 3 1-16d.@3 3-16d. per pound, net cash, as to quantity and market. Bicarbonate of soda continues to move off at £6 15s. per ton, less 2½ per cent., for the finest quality in hundredweight kegs, with usual allowances for larger packages, also special terms for a few favored markets. Sulphate of ammonia is not active, but there is a fair business passing in a quiet way, and £12 17s. 6d. per ton, less 2½ per cent., is about minimum quotation for good gray 24@25 per cent. in double bags, f. o. b. here. Nitrate of soda is steady at £11 5s. per ton for ordinary, up to £11 10s. per ton for refined, in double bags, f. o. b. here.

Heavy Chemicals.

ALKALI.—Further sales of domestic high test in addition to regular deliveries upon outstanding contracts for prompt are reported, but the chief business has been for delivery over next fire, the sales aggregating several thousand tons on the basis of .75c. for light in bulk, .80c. for bags, and dense in bulk at .80c. and bags .85c., with ordinary 48 per cent. at .87½c., f. o. b. works, as to quantity and terms of sale. There is more demand in a jobbing way to meet the wants of the local trade at .85@.90c., as to test, quantity and seller.

BICARB. SODA.—There is more demand for prompt and delivery up to July, with additional sales to regular contract deliveries to the home trade on the basis of 1.30c. for bulk and 1.50c. for kegs, f. o. b. works or delivered in this section at 1.50c. for bulk and 1.70c. for kegs, less the usual discount terms.

BLEACHING POWDER.—There is still a scarcity of stocks in excess of regular contract deliveries to the home trade from recent arrivals, and what stocks are available command full prices. Jobbing sales are reported at 1.30c. up to 1.50c., as to test, make and quantity. There is more inquiry for June-August, with sales of several car lots on the basis of 1.25c. and upward, as to quantity of either foreign or domestic, as to terms of sale seaboard delivery.

CAUSTIC SODA.—Though deliveries upon existing contracts have been held up to some extent during the week, there has, however, been more inquiry for June forward and considerable business has been done in domestic high test for delivery over this and 1906 on the basis of 1.75@1.80c. and .10c. higher for 60 per cent., f. o. b. works, as to quantity and terms of sale. Powdered is dull and prices are still more or less irregular and range from 2½c. up to 3c., as to test, make, quantity and terms of sale.

SALT CAKE.—The usual consuming demand prevails for prompt, with additional sales of car lots now and then on the basis of 65c. for bulk, delivered as to quantity and terms of sale.

SAL SODA.—More demand for May-June delivery with additional sales of domestic to regular contract deliveries, on the basis of 60c. f. o. b. works, or 70c. delivered in this section, less the usual discount terms. Concentrated is also jobbing rather better at 1.40c and up, as to quantity and terms of sale. Foreign is in fair request at .85c. and up for May shipment, as to quantity and seller.

MONOHYDRATE CRYSTALS.—As the warm weather draws near, more demand is reported for both prompt and forward in addition to regular deliveries on the basis of 1¼c. up to 1⅝c. f. o. b. works, as to grade, quantity and terms of sale.

Acids.

ACETIC.—The market continues firm, with limited offerings in excess of regular deliveries, upon existing contracts. Prices for the present may be quoted at 2.60c. and upward, as to strength, packing, quantity and terms of sale.

NITRIC.—Better demand all around, but makers are not pushing sales in excess of regular deliveries, in the present condition of the nitrate of soda market. Prices are firm on the basis of 5¾c. and up, as to strength, quantity and terms of sale.

AQUA AMMONIA.—The usual jobbing demand prevails in excess of regular deliveries to meet the current wants of the trade. Prices are steady on the basis of 4¾c. per car lots in drums, 5c. for less than car lots and 1¼c. higher for carboys on the basis of 26 deg., as to quantity and terms of sale.

MURIATIC.—There is rather more inquiry for spot stocks in addition to regular deliveries. Prices remain steady at 1½c. and upward, as to strength, quantity and terms of sale.

OXALIC.—Rather more inquiry for spot and nearby parcels, with sales in a jobbing way at 5c. and up, f. o. b., as to quantity and seller.

TARTARIC.—The usual consuming demand prevails for spot parcels, with more inquiry for forward delivery, with limited sales on the basis of 29c. for crystals and 29½c. for powdered, as to quantity and terms of sale.

SULPHURIC. — Contract deliveries continue to show a further increase as the warm weather draws near. Additional sales are reported, especially with the soda water makers, on the basis of 1.30c. and upward for 66 deg., as to quantity and terms of sale.

Miscellaneous Chemicals.

ACETATE OF LIME.—Deliveries upon existing contracts both for export and for home consumption continue of sufficient proportion as to keep stocks low in makers' hands. Prices remain firm at 2.35@2.40c. for gray and brown at 1.60@1.65c., as to quantity and terms of sale.

ALUM.—Additional sales to regular contract deliveries are reported for May and June delivery, all of which tend to keep stocks from accumulating. Prices remain steady on the basis of 1.75@1.80c. for lump and 1.80@1.85c. for ground, as to quantity and terms of sale.

ARGOLS.—No change in the situation, which remains a quiet one, with second hands jobbing at 2½c. for red and 3¾c. and up for powdered, as to quantity and seller.

ARSENIC.—There is a fair inquiry for spot stocks, but chiefly in a jobbing way to cover current wants, at 3c. up to 3¼c., as to make and size of the order. But for May-June arrival there is more pressure to sell round lots at 2¾c. and up, as to make, quantity and date of arrival. Red is jobbing at 6½@7c., as to grade and seller.

BLUE VITRIOL.—There is more demand for car lots on the basis of 5c. delivered, less the usual discount terms. Second hands are jobbing at 5c. and upward, as to the size of the order.

BRIMSTONE.—The arrivals of domestic have been about 4,000 tons the past week and further lots of a like quantity are expected within the next ten days, all sold for consumption. No change in prices, which remain steady on the basis of $21 for prime at New York, Baltimore and Philadelphia $21.50, Portland and Boston $21.25, and seconds 30c. less at all points.

CHLORATE OF POTASH.—The usual jobbing demand prevails for spot parcles to cover current wants at 8¾@8⅞c. for crystals and 8⅞@9c. for powdered, as to quantity and seller. Forward deliveries are held firm at 8¼c. for crystals and 8⅜c. for powdered, f. o. b. works for car lots, as to quantity and terms of sale.

CHLORATE OF SODA.—Better demand for prompt and for early June delivery, on the basis of 8⅝c. for spot and 8¼c. and up for forward, as to quantity and terms of sale.

CHLORIDE OF CALCIUM.—Trade is quiet, with contract deliveries meeting the wants of the trade on the basis of $10 per ton, f. o. b. works.

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Chemicals for Use in Steam Boilers to Prevent Scale and Corrosion
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Aqua Ammonia Of all strengths and of absolute purity.
Anhydrous Ammonia, Pure, Dry Gas. Stocks carried at all principal points of distribution
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Bichloride of Tin, 50° and 66°, Always neutral
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MANUFACTURERS OF

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SILICATE OF SODA, ACETIC ACID, ACETATE OF SODA, SULPHIDE OF SODA, ETC., ETC.

Salt Cake for Glass Makers. Chloride of Zinc Solution, Fused and Granulated. Strictly Chemically Pure Acids and Aqua Ammonia.

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New York Works, Grasselli, N. J. **New York Office, 60 Wall Street**

regular contract deliveries upon existing contracts, which are of fair proportions, trade has been rather quiet. Prices remain steady on the basis of 3¾@6½c. for new and 4½@5c. for old process, as to test, quantity and terms of sale.

CARBONATE OF POTASH.—There has been a slight improvement in the demand for spot lots to cover current wants, but for arrival buyers are still indifferent and prices may be quoted nominal at 4@5c. for calcined and 4¼@4½c. for hydrated, as to test, quantity and seller.

CREAM OF TARTAR.—Second hands are selling in a limited way for prompt or early June delivery at 22½c. for crystals, and 23¾c. and up for powdered, as to quantity and terms of sale.

COPPERAS.—Further sales in addition to regular deliveries are reported for May and early June of carlots at 52½c. for bbls., and a shade less in bulk.

GLAUBERS SALT.—More demand both for prompt and May delivery on the basis of 45c. for bbls., in car lots, delivered as to quantity and terms of sale.

SAL AMMONIAC.—Better demand for lump, which is not over plentiful, with sales at 9¼c. and up, but for other grades trade is quiet and prices are easy on the basis of 5¾@6c. for grain, as to grade and seller.

SUGAR OF LEAD.—There is an increased demand from the west for prompt, with sales of several round lots, in addition to regular deliveries, on the basis of 7¼@7½c. for brown, and 9¼@9¾c. for white crystals, as to quantity and terms of sale.

SALTPETER.—Second hands are selling what little crude there is available from dock at 4½c. Refined is meeting with more demand both for prompt and forward at 4½@5½c., as to grade and quantity. We discuss the situation editorially in this issue.

(Special Correspondence to the Reporter.)

Pyrites Deposits in St. Lawrence County, N. Y.

Washington, May 12, 1905.

A brief but interesting report upon several important pyrite deposits, which are now being extensively exploited for sulphur in St. Lawrence county, N. Y., has been prepared for the United States Geological Survey by Edwin C. Eckel. These deposits are of much economic interest because of their location, intermediate between the Appalachian pyrite bodies and those of Ontario. Mr. Eckel says:—

A number of mines and prospects were visited by the writer while engaged in examination of the red hematite deposits, which occur in the same area though in entirely different geologic relations. The Stella mine is located about 2 miles southeast of De Kalb Junction, on the road to Hermon. The country rock is a light gray gneiss, which is usually rather fine grained, but which in places contains coarser bands. It is well foliated, the foliation planes near the mine showing a strike of N. 20 deg. to 30 deg. E., and dipping 20 deg. to 30 deg. to the northwest. This rock is probably a sheared igneous rock of pre-Cambrian age. Near the Stella mine it is well shown in little ridges east and west of the vein, a small depression marking the location of the ore body.

At the mine this gray gneiss incloses a band of fine-grained, dark-colored schist 15 to 20 feet in width. Though this schist band is at this point parallel to the foliation of the gneiss, it is probably an intrusive rock of much more recent age than the gneiss.

The pyrite at the Stella mine occurs as a series of overlapping lenses in this schist. Each lens may average 12 feet in thickness and 200 to 250 feet in extent along the dip and strike. At the main slope the strike of the schist and pyrite belt is N. 20 deg. E., and its dip is 23 deg. to the northwest. The mine has been opened by a slope 700 feet long, which runs down on the dip of the ore body to a depth of 285 feet.

The lump ore, as shipped, contains from 34 to 35 per cent. sulphur. The average mill ore contains from 26 to 27 per cent. sulphur. By concentration this is brought up to 44 or 45 per cent. An average sample of mill ore would give about the following analysis:—

	Per cent.
Sulphur	28
Iron	29
Silica	32
Lime and Manganese	1.5
Zinc	.3
Copper	.2

At the time of the writer's visit the mill was being remodeled, and New Century jigs were being substituted for Hartz jigs. The practice had been, after picking out ore of sufficiently high grade to be marketable as lump, to crush the remainder to 1½ inch, then by rolls to one-fourth inch. The material from the rolls was passed through two sets of screens (one-fourth and one-eighth inch, respectively) in turn, giving two sizes of product, which were sent to two different sets of jigs.

About 4 miles northeast of the Stella mine, at Pyrites or High Falls, the second producing mine is located. Here a 12-foot slope has been run down for 230 feet on the dip of the ore body, while 160 feet of lateral drifts have been opened. The ore body at this point dips 46 deg. to the west. As at the Stella mine, the ore is inclosed in fine-grained schist, but the country rock at High Falls is not the normal gray gneiss of the region, but a coarse, well-foliated gabbro. An old slope showed a body of pyrrhotite 7 or 8 feet thick on the hanging wall, but the new workings are entirely in pyrite.

About 1½ miles south of Richville a small opening is being made on the west side of the Rome, Watertown and Ogdensburg Railroad tracks. The ore here occurs in a body of schist near its contact with crystalline limestone. The schist is fine grained, dark gray to black, and bordered on the west by a series of thinly foliated light-gray gneisses. The pyrite body at present exposed occurs in the schist about a foot from the limestone, and is 7 feet thick at the surface.

London Linseed Market.

The week has been a broken one for business owing to the holidays, but the tone has ruled very firm, and prices continued to rise all the week, the sales put through showing an advance on the week of 1s. 9d.@2s. for Calcutta, 1s. 3d.@1s. 6d. for Bombay and 1s. 6d.@1s. 9d. for Plate. A large business has been done both for the United Kingdom and Continent; quite a number of cargoes of Plate have changed hands, both steamers and sailers. Prices as compared with three weeks ago now show an advance of 4s. 3d.@4s. 9d., while compared with this time last year April-June Calcutta is 11s. 6d. and April-May Plate 12s. higher. We are now at a level of values which, apart from the prices ruling during the years of very short supplies, is distinctly above the average. As regards probable supplies for this year, although they will be much smaller than last year, they promise to be nearly as large as in 1903, and very much larger than in 1902 and 1901. As stated above, present values are above the average, and will probably prove to be sufficiently tempting to induce exporting countries to part somewhat freely with their surplus. The arrivals at the different Argentine ports have been very small for some time past, and if the present prices do not bring out supplies on a more liberal scale, serious doubts will be felt as to the accuracy of this year's official crop estimate, although these official estimates in previous years have proved to be very correct. In a short time now we shall be in possession of the final Indian crop reports, which will give the actual yields for the different districts, and we shall then be in a position to know how much seed India will be able to export.

The arrivals during January to April for the past four years have been as follows.—

	1905. Qrs.	1904. Qrs.
Afloat, Jan. 1	495,000	400,000
Shipments to April 30	2,490,000	3,514,000
Total	2,985,000	3,914,000
Afloat, April 28	670,000	1,320,000
Arrivals, January to April.	2,315,000	2,594,000
	1903. Qrs.	1902. Qrs.
Afloat, Jan. 1	165,000	195,000
Shipments to April 30	2,465,000	2,023,000
Total	2,630,000	2,218,000
Afloat, April 28	785,000	432,000
Arrivals, January to April.	1,845,000	1,786,000

The shipments from the Argentine to Europe this week were 12,750 tons, and since Jan. 1 amount to 338,050 tons, against 552,300 tons in 1904 and 345,050 tons in 1903.

The shipments of linseed from India from April 1 to date amounted to 136,000 quarters (Calcutta, 64,000 quarters, and Bombay, 72,000 quarters), against 205,000 quarters last season (Calcutta, 109,000 quarters, and Bombay, 96,000 quarters), and 263,000 quarters (Calcutta, 162,000 quarters, and Bombay, 101,000 quarters).

The shipments of linseed from all countries last week amounted to 76,000 quarters for the United Kingdom (including orders) and 36,000 quarters for the Continent, together 112,000 quarters (against 272,000 quarters in the same week last year), making the total since Jan. 1, 841,000 quarters to the United Kingdom and orders and 1,549,000 quarters for Continent, together 2,390,000 quarters, against 1,180,000 quarters for United Kingdom and orders, and 2,148,000 quarters for the Continent, total 3,328,000 quarters in the previous year.

From Russia and the Danube the exports of linseed from Aug. 1 to April 22 have amounted to 302,000 quarters, against 513,500 quarters in the previous year and 561,000 quarters in 1902.

The receipts of linseed at Bombay for the week ended April 6 amounted to 6,295 tons, against 5,162 tons in the previous week and 7,170 tons in the same week last year. The total receipts at Bombay from Jan. 1 to April 6 have amounted to 60,670 tons, against 51,664 tons in the same period last year.—Beerbohm's Trade List.

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FERTILIZER MATERIALS.

NOTE.—Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures. Complete prices current will be found on page 33.

Saturday Noon, May 13, 1905.

There is nothing of special interest to note in the market for materials and prices remain firm with a stronger undertone to the market for nitrate of silver. According to late reports from the South the actual shipments of manufactured fertilizers from Charleston for the first four months of this year amounted to 553,941,560 lbs. and the actual shipments from Charleston proper aggregated 276,971 tons, which does not include any shipments except from Charleston proper. Although the tonnage of shipments of fertilizers is large, it is not as heavy as in preceding years, the average being over 300,000 tons. The heaviest shipments were made in March.

Ammoniates.

SULPHATE OF AMMONIA. — The market remains steady, and moderate sales at the quoted prices have been effected. Prices are strengthening in sympathy with the strong position of nitrate of soda. Reports from abroad are unchanged markets, and parcels for prompt delivery are offered sparingly. Cables note firm prices, quoting $3.12@3.15 New York for prompt and May-June delivery. Some sales of domestic at $3.10@3.12 per 100 lbs., New York, for prompt and future delivery, have been made. Spot and nearby parcels of foreign are quoted at $3.15 @3.17 and the futures at $3.15@3.17 per 100 lbs. Parcels of domestic on the spot and for prompt shipment are held at $3.10 and future delivery at $3.10@3.12 per 100 lbs.

FISH SCRAP.—Large local scrap dealers have made contracts for this season's entire output of dried scrap by the Fisheries Co., and it is believed that the price paid was in the neighborhood of $2.30 and 10c. for 10 per cent. of ammonia and 14 per cent. of bone phosphate per unit, f. o. b. fish works. It is expected that the above company's menhaden fishing fleet will begin fishing within the next two weeks. Quotations have not been changed and parcels of dried at fish works are quoted nominal at $2.37½ and 10c. and $2.45 and 10c., delivered, and acidulated at $2.20 and 35c. for 6 per cent. of ammonia per unit. Imported scrap is firm abroad and little is being offered here at previous prices.

TANKAGE.—Buyers in the North and South have practically completed their purchases, and aside from small sales for prompt delivery at the quoted prices, trade has been quiet. Packers are firm and are quoting $2.20@2.25 on parcels of high grade concentrated tankage, 15-16 per cent., $2.15@2.20 and 10c. for 10-11 per cent. and 10-15 per cent. $2@2.05 10c. for 9 and 20 per cent., and $16@17 for 7 and 30 per cent. per ton, all according to the time of delivery and terms of sale.

GARBAGE TANKAGE.—We have nothing of interest to report in this department, and under limited offerings sales have been small at prices within the quoted range of $8@9, according to quality, quantity and seller, and point of shipment.

DRIED BLOOD.—Trade in this department is similar to that as noted for tankage, and only small sales at the quoted prices could be traced. Packers are holding parcels of 12@13 per cent. ammonia at $2.60@2.65 per unit, f. o. b., New York, and high grade at $2.35@2.40 per unit, f. o. b. Chicago, according to delivery and terms of sale.

NITRATE OF SODA.—Supplies on the market are very scarce and prices remain decidedly firm and nominal at previous quotations. Some holders are asking as high as 3c. for 100 bag lots of 95 grade on the spot. Parcels due here are offered on the basis of $2.40 @2.45 per 100 lbs. for 95 grade. Goods due here by the Capac on May 31 are quoted at about $2.40. Futures remain steady but unchanged, and June is quoted at $2.30, and July-December at $2.22. For the first six months of 1906 $2.22 is named and for the entire year of 1906 $2.15 is quoted. The above prices are based on 95 grade, per 100 lbs. Parcels of 96 grade are quoted at 2½c. per 100 lbs. higher.

PYRITES.—Only moderate sales have been made and prices have undergone no change. Additional charters of steamers to bring on Spanish ore have been effected, and shipments on outstanding contracts continue fairly heavy. Sellers are quoting parcels of Spanish crude unwashed fines, averaging 48 to 52 per cent. of sulphur, at 7½@10c.; Spanish smalls washed ore, 8@ 8½c., and lump ore, averaging 48 to 52 per cent. of sulphur, at 10@10½c.; lump non-arsenical high-grade ore at 11@12c.; arsenical lump, not washed, 10½@11c., all per unit, ex ship. Parcels of domestic are offered at 9½@10c. for fines averaging 45 per cent. of sulphur and 10½@11c. for furnace size, averaging 45 per cent. of sulphur per unit, f. o. b. shipping port.

Phosphates.

ACID.—No new developments or features of interest could be traced, and under a steady demand prices remain on a stationary basis. Deliveries on contracts are going forward on a fairly good scale. Quotations are firm at 60@ 67½c., according to point of shipment.

BONES.—The undertone to prices of steam bone still remain easy and few carload lots have changed hands. Bone blacks are being well patronized and additional sizable quantities at prices within the quoted range have been effected. Open kettle boiled bones are being offered at $20@21 per ton, basis of New York freight. Parcels of ground steamed, 3 per cent. ammonia and 50 per cent. bone phosphate are held at $23 and upward, and 1½ per cent. ammonia and 50 per cent. bone phosphate at $19 and upward. Unground steamed is offered at $18 and upward, and hard boiled at $20 and upward; boneblack oil discard, $12 and upward, and sugar discard, $16 and upward, all according to quality, quantity and seller.

PHOSPHATE ROCK.—Prices remain firm in tone and stationary under a steady demand and a good movement of supplies into consumption. Parcels of hot air dried Charleston rock are offered at $4, f. o. b. vessels in Ashley River. The comparative exports of crude phosphate rock and acid phosphate from the port of Charleston from September 1, 1904, to May 5, 1905, were as follows:—

Shipments to—	1904–1905 Cr'de.	1904–1905 Acid.	1903–1904 Cr'de.	1903–1904 Acid.
Baltimore	12,422	7,853	8,309	....
Philadelphia	2,205	....	....	....
Barren Isl'd, N. Y.	1,268	....	....	....
New York	1,500	....	....	....
Norfolk	....	17,590	....	3,737
Weymouth	4,803	....	5,690	....
Cartaret	5,715	....	988	....
Alexandria	....	2,375	....	....
Other ports	....	9,712	....	....
Total exports	27,911	37,530	14,987	3,737

Shipments of phosphate from Charleston, S. C., for the month of April, 1905, amounted to 666 long tons to Barren Island and 5,048 tons by Southern Railroad; total 5,714 tons. Shipments of Peruvian guano to New York embraced 3,350 tons.

Potashes.

Shipments have been practically confined to the North, and to the South only small quantities on outstanding contracts are being shipped.

MURIATE.—There has been a steady demand for supplies on contracts for shipment next month to meet the spring demand in the North. Quotations remain stationary on spot parcels of muriate of potash, testing 80@ 85 per cent., basis 30 per cent., are quoted at $1.95@1.98, and futures at $1.90@1.93 per 100 lbs., according to point of shipment. Manure salt, 20 per cent. actual potash, is quoted at $14.75@15.75 per ton of 2,240 lbs., and double manure salt, 48 per cent., at $1.16½@1.19½ per 100 lbs., according to point of shipment.

SULPHATE.—The shipments of supplies on contracts for the week amount to a fair volume. Prices remain steady and parcels are quoted, basis 90 per cent., testing minimum 90 per cent., are quoted at $2.18½@2.21½ per 100 lbs., according to point of shipment.

KAINIT.—The call for supplies on outstanding contracts to be delivered to the North next month has been fair. Prices remain stationary for supplies in bags at $9.50 and in bulk $8.50 for shipment to the South or North, invoice weights per ton of 2,240 lbs.

(Special Correspondence to the Reporter.)

Baltimore Fertilizer Market.

Baltimore, May 12, 1905.

Ammoniates.—The market since our last report has been quiet, and outside of a small demand from the East for material for prompt shipment, the volume of business has been small. Quotations are as follows:—Ground tankage, 7 and 25 per cent., at $17 per ton; ground tankage, 11 and 15 per cent., at $2.10 and 10c.@2.12½ and 10c. per unit; unground tankage, 9 and 10 per cent., at $2.02½ and 10c.; ground concentrated tankage at $2.15; ground blood at $2.35@2.40; hoof meal at $2.30@2.35, all f. o. b. Chicago; crushed tankage, 9 and 20 per cent. (futures), at $2.45 and 10c.@2.50 and 10c. c. and f. basis Baltimore. Nitrate of soda —Spot parcels are quoted at $2.40 per 100 lbs.; late May and early June delivery at $2.40; late June delivery at $2.32½; July-December delivery at $2.22½; all above prices are for 95 grade. Ninety-six grade is quoted 2½c. per 100 lbs. higher.

☞For Fertilizer Reports from Chicago and Charleston see index on page 22.

(Special Correspondence to the Reporter.)

The Castor Oil Industry.

Washington, May 12, 1905.

The castor oil industry of the United States is the subject of an interesting monograph that has been prepared for the Department of Agriculture by Charles M. Daugherty of the Bureau of Statistics, an expert who has made a special study of the ulitization of the various oil seeds of commerce. Following is an advance abstract of this monograph:—

Castor oil is now extensively used in countries which manufacture large quantities of calicoes and colored cotton goods. The United Kingdom is the greatest European consumer, and of the other principal consuming countries the United States ranks easily among the first. As compared with the enormously increased consumption of other fixed or expressed oils, the use of castor oil in the United States is on a small scale; the annual consumption is measured by hundreds of thousands of gallons, where that of either cottonseed oil or linseed oil amounts to tens of millions. However, the functions that castor oil performs in industry and in the arts are of great economic importance, as becomes apparent from a consideration of the varied uses to which its peculiar properties adapt it.

Within comparatively recent years, that is, since aniline dyes have almost completely supplanted the mineral and vegetable dyes formerly used in coloring cotton textiles, an extensive demand for castor oil has sprung up in the industry of dyeing and printing cotton goods. Without presuming to invade the intricacies of the dyer's art wherein secret recipes for the composition of colors and their application to cloth are the property of each individual dyer, it may be said that the general principle underlying the utility of this oil in coloring processes is that the aniline underlying the utility of this oil in coloring processes is that the aniline and alizarine dyes are soluble in sulphurated castor oil; in other neutral fats and oils these dyes, with few exceptions, are in general insoluble. In certain processes of dyeing and printing, therefore, castor oil enjoys a practical monopoly over all other oils.

The popular red, formerly known as Adrianople red, but now commonly as Turkey red, famous for the permanency, intensity and beauty of its color, owes its quality of exceptional fastness to castor oil. The coloring matter itself, alizarine, which was originally derived from the root of the madder plant, but is now almost wholly supplanted by an artificial dyestuff of the same name obtained from anthracene, a product of the distillation of coal tar, has, like many dyes, little affinity for cotton fiber. Applied directly to the cloth by ordinary methods it gives a color of little permanency. To fix this color there is necessary the treatment of the cloth with some substance or agent which, having an affinity for both the cotton tissue and the coloring matter, alizarine assists in effecting a chemical combination between them. The substance now almost exclusively used for this purpose is castor oil. Mixed with a small quantity of concentrated acid, which is then washed away by a solution of common salt, and soda or ammonia being added to saponify the fatty acids, there is produced from castor oil another oil which is perfectly soluble in water, a property especially desirable for the saturation of cotton cloth. The resultant oil is known by many names—sulphurated castor oil, soluble oil, sulforicinate, etc.—but from the use to which it is largely devoted, that of fixing alizarine dye upon cotton goods, it is generally known as alizarine-assistant, or Turkey red oil. The economic value of this oil depends largely upon the fact that the specific red thus fixed by it upon cotton cloth is one of the most permanent colors known to the dyer's art. Soluble oil is also used as a substitute for the more expensive glycerine in the treatment of cotton cloth. It has an admirable effect upon starch mixtures, and imparts to the fabric a quality of softness, suppleness and pliancy. Although no definite figures are extant as to the quantity of castor oil annually consumed by the textile industry, the consensus of opinion among those best qualified to know is that a greater portion of the castor oil output of the United States is utilized in the treatment of cotton goods than for any other single purpose.

Probably the next most important channel of consumption is the drug trade. In earlier days castor oil was best known as a medicine. The once universal disposition to regard it as a "sovereign remedy" is still among the early remembrances of living men. Not only was the customary maternal diagnosis of each childish ailment prone to result in a repulsive dose of castor oil, but even among hearty adults occasional self-prescribed doses of this so-called panacea were deemed necessary to the continuance of perfect health. Thus, two factors contributed to its consumption—its positive value as a medicine and its apparently harmless effect upon good health. In addition to its common use as a purgative, rheumatism, lumbago, skin affections, cramps, colds and a host of other ills were popularly believed to yield to its curative properties; in fact, medicinal use was a highly important element in the castor oil trade. Naturally, the

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SULPHATE OF AMMONIA AND OTHER CHEMICALS.

marvelous advance that has been made in medical science in recent years has resulted in the widespread substitution for this once popular cure-all of less nauseating, if not more efficacious, drugs. As a general rule, physicians less frequently prescribe it. Modern preparation in capsules and compounds has, it is true, had a decided tendency everywhere to perpetuate its traditional uses as a self-prescribed remedy. In some rural communities, too, especially among the colored population of the South, its medicinal virtues still retain much of their old-time popularity, and in some pharmaceutical compounds it is still a staple. In short, considerable quantities of the high grade of castor oil are still absorbed by the drug trade, although its value as a medicine has, on the whole, somewhat declined in public esteem, and there no longer exists for it so universal a demand as a "home remedy."

Castor oil has many other and varied uses, some of which are not common to the United States. Was the trite saying, "every man to his taste," ever better exemplified than by the almost incredible custom, said to prevail in parts of China, of using castor oil as a cooking grease, as lard is used in America? A less surprising but, as judged by American standards, almost equally uncommon custom is the use of this oil in British India and in some other Oriental countries as an illuminant. In British India it is reputed, among other uses, to be extensively used as a lamp oil, and reports of no ancient date even refer to it as the illuminating agent in railway cars. Castor oil also has, in some countries, extensive uses as a lubricant. In Australia, which imported 769,392 gallons in 1898, the chief use is officially stated to be for this purpose, and the decline in imports in 1902 to less than 500,000 gallons is attributed to the substitution for this vegetable product of the mineral product, petroleum. It may also be noted that in the Cape of Good Hope, where the oil is probably largely used for the same purpose, 307,728 gallons were imported in 1902. To a limited extent this oil is used for lubricating purposes in the United States. Castor oil also has properties that adapt it to use in the dressing of leather, and a demand for limited quantities exists in the United States, especially in country districts, for domestic use in oiling and softening boots, shoes and harness. Among minor uses may be mentioned its use in the manufacture of "sticky fly paper" and of the so-called "glycerine soap." For some of its varied uses it is apparent that the demand for castor oil in the United States has declined; for others, especially in recent years, it has increased. The resultant of these opposing forces, however, is that consumption as a whole is on the upward trend. Quantitatively, the consumptive demand for this product in the United States is now probably at its maximum up to this date, and absorbs in round numbers about 1,000,000 gallons annually.

The manufacture of castor oil in the United States is an economically important but, as measured by the capital invested and labor employed, a small industry. As is true of most of the industries engaged in this country in the expression of oil from oleaginous seeds, however, the productive capacity is far in excess of the total demand for oil. Of the dozen castor-oil mills located in different sections of the United States, several have been practically idle for some years. The remaining mills, though constituting the so-called active branch of the industry, are operated with irregularity, or as the exigencies of the supply of castor beans and the demand for castor oil require. The present principal active centers of the industry are Jersey City, N. J.; St. Louis, Mo.; Kansas City, Mo., and Memphis, Tenn. A single mill is located in each of these centers, excepting that in St. Louis (including one mill in East St. Louis) there are three. The mill in Jersey City, containing six presses—the largest number in any mill in the United States—is advantageously situated for handling imported beans. The Western mills, operating three or four presses each, were originally established for pressing the crop of the castor-bean belt of the United States. There are also two mills in Boston, Mass., one of which is operated in connection with an alizarine assistant manufactory; one in Brooklyn, N. Y., and a mill in Grand Rapids, Mich., adjunct to the manufacture of sticky fly paper. Doubtless, the productive capacity of the castor-oil mills of the United States is sufficient to supply double the country's requirements of castor oil.

The castor-bean supply of the United States is derived almost entirely from two widely separate sources—the first, a few counties in Oklahoma, Eastern Kansas, Western Missouri and Southwestern Illinois, where for many years has been produced practically the entire domestic crop; the second, British India, a country which has long had almost a monopoly of the commercial castor-bean production of the world. The domestic crop, once sufficient to supply the entire demand—that is, of the Eastern as well as the Western mills, has of late years greatly declined. And at present a striking feature of this industry is that, although the castor oil used in the United States is manufactured almost wholly in domestic mills, the bulk of the beans from which it is expressed is imported from the opposite side of the earth. Although statistics upon domestic production are deficient, enough is known to warrant the statement that probably three-fourths—possibly four-fifths—of the castor oil manufactured in the United States is now made from imported beans.

The man who first brought castor beans into the United States has left no record of his achievement, and succeeding generations who fostered his enterprise have been scarcely less mute. A small crop, limited, at even the highest stage of its development, to groups of counties, rather than to States, naturally its early history is lost in oblivion. The salient fact is that the crop has always been largely localized in part of the States of Illinois, Missouri and Kansas, and the Territory of Oklahoma. Incidental mention is found of its cultivation in Illinois before that State was admitted into the Union in 1818. Within the next quarter century there are occasional references to experimental culture in Georgia and other Southern States. But not until 1850 were there comprehensive data indicating the geographical distribution and extent of the crop.

At the taking of the census in 1850 twenty-three castor-oil mills were reported for the entire United States; of these, ten were in the State of Illinois, three in each of the States of Missouri and Virginia, two each in Ohio and Tennessee and one each in Pennsylvania, Alabama and Arkansas. All were small establishments, doubtless of crude equipment, and evidently designed only for manufacturing the small crops of nearby farms, excepting that in Missouri, St. Louis had already become, as it has since remained, the principal commercial center of castor-oil production in the West. As measured by the value of the oil produced, upward of 70 per cent. of the total production of castor oil in the United States at that date was made in the Missouri mills. Though no statistics were taken of the actual production of castor beans, it is evident that the bulk of the entire crop was raised in territory tributary to St. Louis; in other words, as early as 1850 the cultivation of castor beans was already largely specialized in that section, beyond which it has never extended on an important and enduring scale.

In the Eastern States the castor plant, on account of its ready susceptibility to injury from frost and other causes, has never been cultivated for industrial purposes. But, on account of the important consumptive market there for castor oil and the facilities for importing castor beans, attention was early attracted to the industry on the Atlantic coast. In 1857 a mill was erected in Jersey City, N. J. This was the largest mill, equipped with the latest improvements in machinery and constructed exclusively for the manufacture of castor oil, that had been erected in the United States. The industry thus became largely centralized in Jersey City and St. Louis, cities which have since remained the leading markets for castor beans. The respective advantages of each location with reference to the two sources of supply, domestic and foreign, are obvious. Many small mills about this time went out of business, and at the taking of the census in 1860 only eight castor-oil mills were reported for the entire country against 23 in 1850. Of the capital invested in these, half was represented by the two mills in Jersey City and St. Louis.

Soon after the Civil War great local interest was revived in the producing sections in the culture of castor beans. In some years the crop exceeded the consumptive demand; even the supplies required in the East were drawn from the Western States, and the import trade from British India was threatened with extinction. Statistics of production as a whole were not collected, and comprehensive knowledge of the crop is not obtainable. The few figures that are extant, however, are valuable, in that they constitute the only statistical record upon this subject. As to Missouri and Oklahoma, beyond the fact that the crop was raised on a commercial scale, little is known. But in Kansas, which was then the chief producer, the State board of agriculture reported an increase in the crop from 59,435 bushels in 1873 to 766,143 bushels in 1879, the latter being the highest annual yield that has ever been reported for the State. There is reason for believing that this bumper crop in Kansas constituted practically the entire crop of the country. The Illinois State reports show the crop of that State in 1879 to have been only 24,314 bushels; and that the crops of Missouri anad Oklahoma were not of great importance is indicated by the receipts of castor beans in St. Louis, which in that year were only 516,507 bushels, the bulk of which was undoubtedly from Kansas. The effect of this increase in domestic production upon imports was that the latter, which as early as 1867 had amounted to 60,588 bushels, declined to 1,655 bushels in 1879. Although castor beans are not a perishable product and can be carried over from year to year, the effects of the heavy production soon became apparent. Prices fell, and production rapidly declined until in 1884 it amounted in Kansas to only 89,183 bushels and 19,295 bushels in Illinois. The import trade again became an important factor in the industry, the takings from British India attaining in that year the then unprecedented proportions of 262,505 bushels.

Up to this date few important changes had occurred in the industry of manufacturing castor oil. At the taking of the census in 1870 six mills were reported. All the old mills, excepting one each in St. Louis and Jersey City, had passed out of existence; but, as a result of tentative efforts to introduce the cultivation of castor beans into Texas and Tennessee, three new mills had been erected in the former and one in the latter State. These four mills were of small capacity and short-lived; at the taking of the next census they had disappeared. The annual output of oil for the whole country, as reported by the census, was 341,850 gallons, of which 270,000 gallons was the product of the two principal mills. Eight mills were reported by the census of 1880, but the only noteworthy addition to the old-established branch of the industry was a new mill in St. Louis and one in East St. Louis. The other four were small affairs, located in Ohio, Illinois and Kansas. A notable increase in the output of oil over that of 1870 was reported, the total quantity being 893,802 gallons, the increase being partly due to the enormous overproduction of castor beans in Kansas in 1879 and to the introduction of improved machinery into the principal mills. The next important addition to the industry was the Kansas City, Mo., mill, which began operations in 1885.

The subsequent history of castor bean production in the United States is, as a whole, one of continuous, though irregular, decline. From the scant statistics upon the subject this is plainly apparent. In 1887 the crop of the single State of Kansas was reported by the State board of agriculture to be 405,488 bushels; in 1899 the entire crop of the United States, as returned by the census, was only 143,388 bushels. This heavy decline in production, though of late years common to all the producing States, was principally due to the abandonment of the crop in Kansas, the crop of 1887 never since having been equaled. That State, from being the leading producer, has become probably the smallest. Evidently, if the rate of decrease in Kansas—from a maximum of 766,148 bushels in 1879 to a minimum of 2,925 bushels in 1904—had been maintained in all the States, their crops would have long ago been practically extinct. But for many years as the crop of Kansas decreased, that of Oklahoma increased, though not in equal proportion, and that Territory has long been the chief source of supply for domestic castor beans crushed in the western mills. There are no means of determining the maximum annual crop of Oklahoma, but in 1899, when the first and up to the present day the only Federal inquiry was made into the castor bean production of the United States, it was found that the crop of that Territory amounted to 77,185 bushels, as compared with a production in Kansas of only 18,108 bushels, the latter figures, however, admittedly representing only about two-thirds of the crop. The relative importance of Oklahoma as a source of supply was further in evidence by the fact that the production in Missouri in the same year was given at 31,966 bushels, that of Illinois at 15,965 bushels, and the combined product of all other States at 434 bushels. The impulsion of this heavy fall in production has not been stayed up to the present day; though no figures are extant to show the exact limit reached, it is known that in general terms the annual castor-bean crop of the United States is now below 100,000 bushels. The quantity raised is insufficient for the demands even of the western mills. Lively competition arises each year in the principal producing sections for the possession of the crop, and the deficiency in western supplies is now made good, when the conditions of the trade warrant, by purchases of imported seed.

Of the manufacturing industry to which castor beans give rise in the United States, little additional can be said. The activities of this industry have for almost a half century been limited to supplying the varying domestic demand for castor oil, for no noteworthy export trade exists and imports are of negligible quantities. The domestic uses of this oil moreover, important as they are from an economic point of view, are peculiar, in that they absorb only moderate quantities. This is true even in the textile industry. However, there has been an increase, especially in recent years, in the demand in this country for castor oil. Notwithstanding the continuous decline for two decades past in the domestic crop of castor beans, additional capital has occasionally been attracted to the manufacture of this oil, and there has been some expansion in the total productive capacity, especially on the Atlantic coast. In the eighties a mill was erected in Brooklyn, in the nineties another was started in Boston, and within the last few years the manufacture of this oil has been taken up in Memphis, Tenn., but, beyond the mere fact of their existence, little significance attaches in this industry to a mere enumeration of mills. The irregularity of operation in some establishments, the long periods of inactivity in others, and a natural reticence among operators to reveal the workings of their plants render it impossible to form any exact idea from productive capacity of the country's actual output of oil. Moreover, except in 1899, no statistics as to the total castor-bean crop have ever been collected. The only factor in the annual supply that is known with exactness is the quantities imported. In recent years that factor has become very important. Instead of Kansas and Oklahoma, the chief source of supply is now the port of New York. In the fiscal year 1902-3 imports of castor beans into the United States amounted to 380,270 bushels, or potentially 760,540 gallons of oil; in 1903-4 the quantity imported amounted to 498,039 bushels, representing in oil 996,078 gallons. The domestic crop of castor beans, though statistically an unknown quantity, is known to have fallen greatly below the 150,000 bushels reported for 1899 by the United States census. Assuming the crop to have been a round 100,000 bushels in 1903, the quantity of castor beans available for manufacture in the year 1903-4 would therefore have been 598,439 bushels, or potentially about 1,200,000 gallons of oil, with a resultant by-product of upward of 10,000 tons of castor pomace. The present most striking characteristic of this industry is its heavy dependence for supplies upon British India.

(Special Correspondence to the Reporter.)

Palm Oil in Oleomargarine.

Washington, May 12, 1905.

The question of the right of oleomargarine manufacturers to use palm oil in the manufacture of their product without rendering it liable to the tax of 10 cents per pound, which was decided adversely to the producers some months ago, has been reopened by the filing in the United States Supreme Court of a petition for a rehearing and a motion to recall the mandate of the court in the case of Cliff vs. United States. The argument in support of this petition is ingenious and forceful and the oleomargarine manufacturers feel encouraged to hope that a rehearing will be allowed, especially in view of the fact that the original decision of the court was handed down by a divided bench, Justices Fuller, Harlan and Peckham holding palm oil to be a legitimate ingredient of oleomargarine taxed at the minimum rate of ¼ cent per pound.

In asking for a rehearing the petitioners put forward several claims as to the error of the court in its original decision. The principal contention is that the government had no right to rule against the use of palm oil simply because it was employed in a very small quantity. It is also contended that the court erred in resolving doubts in favor of the government when it should have construed the oleomargarine law with great liberality in favor of the taxpayer and also because in this case the criminal provisions of the statute were invoked. Finally, it is asserted that the amount of the revenue tax paid on oleomargarine does not properly bear any relation to the accomplishment of the purpose "to prevent the sale of oleomargarine as and for butter."

Referring to the alleged use of palm oil for the purpose of coloration, the petition for rehearing says:—

"The theory of the court's opinion in this case seems to be that any substance which imparts color is within the term 'other coloring matter,' as used in the statute, and if it serves substantially only the purpose of coloring the product so as to cause it to look like butter of a shade of yellow, then such color-giving substance is artificial coloration.

"The clause in the court's opinion, 'For "other coloring matter" includes all coloring matter, at least of the nature of those named,' indicates that the court regarded as 'coloring matter' all, or at least more than one, of the substances named in the section. But the fact is that annotto is the only 'coloring matter' specifically named in the section; for with the exception of annotto all the substances named specifically in section 2 of the act are fats or oils. Properly speaking, a fat or an oil is not and cannot be called a 'coloring matter,' even if such fat or oil, as used in the oleomargarine, 'substantially serves only the function of coloring the mass and so as to cause the product to look like butter of any shade of yellow.' It is not the motive with which a particular substance is used in a specific case, nor the quantity used, but it is rather the inherent nature of the substances itself that determines its classification. If inherently the substance is a fat or an oil, then it does not become a 'coloring matter' merely because only a small quantity of it is used, and even though the motive in using it is to make the oleomargarine 'look like butter of any shade of yellow.'

"An oil is generically different from a coloring matter. Coloring matter is a pigment or dye, and never an oil. A natural oil, like palm oil, has its pigment, which gives to the oil the color which is native to and characteristic of that oil. The oil has its pigment or coloring matter dissolved in it by nature, but the oil itself is not coloring matter. The color may fade away, but the oil remains; or if the coloring principle native to any oil could be extracted the substance thus procured might be called 'coloring matter,' but the oil would still remain. In short, the fats and oils, including vegetable oil, mentioned in the statutory definition of oleomargarine are, properly speaking and as described by this court in McCray v. United States, 195 U. S., 27), 'authorized ingredients not artificially colored,' but each one having its own color due to the presence in it of a natural pigment. It follows, therefore, that resemblance to butter of a 'shade of yellow' due to the use in the oleomargarine of palm oil which, being vegetable oil, is one of these 'authorized ingredients not artificially colored,' does not make the palm oil an 'artificial coloration' merely because the quantity of palm oil used is small and the purpose of its use is to impart to the oleomargarine the color native to that oil. On the other hand, 'annotto and other coloring matter' are neither fats nor oils, and properly speaking, are not 'authorized ingredients,' but are authorized 'coloring matter' which imparts artificial coloration to the oleomargarine in which it is used and subject such oleomargarine to a government tax of ten cents per pound; and the words 'other coloring matter' include all substances 'of the nature of' annotto, which is the only 'coloring matter' specifically named in the statute.

"If the words 'other coloring matter' had been omitted, then when some 'coloring matter' or dye other than annotto—as, for instance, the 'Wells-Richardson Improved Butter Color'—was used, it might have been claimed that the product was not oleomargarine within the meaning of the statute; and it was to prevent any such claim that the words 'other coloring matter' were added, thus embracing all coloring matters of the nature of annotto, the one 'coloring matter' specifically mentioned.

"With this distinction between 'authorized ingredients' and authorized 'coloring matter' kept clearly in mind, it is apparent that the proviso in section 8 does not nullify the preceding part of that section. For oleomargarine in which annotto or 'other coloring matter' is used will be subject to the tax of ten cents per pound because annotto or 'other coloring matter' of the nature of annotto is 'artificial coloration.' On the other hand, oleomargarine composed exclusively of 'authorized ingredients not artificially colored' will be subject only to the tax of one-fourth of a cent per pound, even though such oleomargarine 'look like butter of any shade of yellow' and regardless of the quantity used of that particular 'authorized ingredient not artificially colored' that may be used to impart the color."

The distinction between "authorized ingredients" and "authorized coloring matter" is claimed by the petitioners to have been clearly contemplated by the United States Supreme Court in the McCray case, for it entirely accords with the reasoning of the court in its opinion in that case, where the court said:—

"As the manufacturer of oleomargarine was permitted to used either butter not artificially colored or butter so colored, the effect of striking out the word 'ingredient' operated simply to render it certain that the finished product, even although of a yellow color, would be within the proviso where the color was imparted by an authorized ingredient not artificially colored."

Commenting on this declaration of the court, the petitioner says:—

"The ingredients of the oleomargarine 'purchased and received for sale,' by Cliff are known and undisputed, and the brief and explicit statement by this court in the McCray case, above quoted, makes it a simple matter to determine whether a product of these known ingredients, looking 'like butter of any shade of yellow,' is subject to the tax of ten cents or to the tax of one-fourth of a cent per pound.

"Was the color 'imparted by an authorized ingredient not artificially colored'? If so, then the oleomargarine is 'free from artificial coloration' and the tax is one-fourth of a cent per pound. Otherwise, the tax is ten cents per pound.

"In this case, it is conceded that the resemblance to butter of a shade of yellow was due to the use of a small amount of palm oil in the oleomargarine. It is likewise conceded that the natural color of palm oil is orange-yellow. In other words, the color in palm oil belongs to the fat and has no existence separate and apart from the fat.

"The only question in this case, therefore, is this:—Is palm oil an 'authorized ingredient' of oleomargarine? An affirmative answer to this question is found in the fact that palm oil is a vegetable oil, and that by the very terms of the second section of the oleomargarine act vegetable oil is specified as one of the ingredients of oleomargarine as defined for the purposes of that act, and, as has been shown, vegetable oil and 'coloring matter' are generically different and mutually exclusive."

Taking up the subject of the use of yellow oils in the manufacture of oleomargarine, the petitioner calls attention to the fact that the court in this case apparently makes a distinction between coloration that might be caused by the use of "what might be regarded as a large percentage of palm oil and coloration caused by what might be regarded as a small or minute percentage of palm oil." Continuing, he says:—

"Just where the line might be drawn between a large percentage and a small percentage of palm oil, neither the Commissioner nor the court has stated. The court's opinion seems to hold, that coloration in oleomargarine is 'artificial' when caused even by a statutory—that is, a natural—ingredient, if used in such small quantity as to suggest the inference that it was used substantially only for the purpose of imparting color to the finished product, while if what the court should regard as a large quantity of the same ingredient were substituted for a like volume of any other statutory ingredient hitherto used (as, for instance, cottonseed oil) and the avowed purpose of the substitution were thus to impart coloration to the finished product, the resulting coloration would not be 'artificial'—that is to say, an intent to color which is inferred from the use of what may be regarded as a small percentage of palm oil makes the coloration 'artificial' and subjects the oleomargarine to a tax of ten cents per pound, but an avowed intent to color by the use of what might be regarded as a large percentage of palm oil in lieu of a like volume of any other statutory ingredient does not make the coloration 'artificial,' and subjects the oleomargarine to a tax of only one-fourth of a cent per pound, because the palm oil would in that case form a substantial part of the body of the product."

The petitioner therefore argues that if Congress had intended to discriminate between the use of a large or a small quantity of yellow oil it would have specified the percentage that must be used of any color-giving ingredient in order that the manufacturer should not lose the benefit of the lower tax, if he desired to make oleomargarine that would be subject only to such tax, and in order that he might not wittingly expose himself to punishment for violation of the law.

It is expected that the court will rule upon this application for a rehearing within a few days and that if it is granted, an opportunity will be afforded to present the arguments at the current term, although a decision may not be reached prior to the summer recess.

Comparative Stocks of Lard.

The Cincinnati Price Current submits the following comparisons of stocks of lard on May 1 for the years mentioned, held in Chicago and New York, and reported in European markets and afloat, with totals, represented in tierces:—

	Chicago.	N. Y.	Europe, etc.	Total
1894.....	9,000	14,500	96,500	120,000
1895.....	59,500	19,100	179,500	258,100
1896.....	180,000	20,400	213,500	414,500
1897.....	257,200	19,100	247,000	523,300
1898.....	124,800	17,400	154,000	296,200
1899.....	150,400	17,700	170,000	338,100
1900.....	94,500	13,200	128,000	235,700
1901.....	40,600	8,200	88,000	136,800
1902.....	47,800	8,000	101,400	157,200
1903.....	29,200	5,000	88,700	122,900
1904.....	96,000	6,500	120,000	222,500
1905.....	137,800	6,000	158,800	302,600

The above shows visible stocks of lard this season to be 80,000 tierces more than a year ago, and 31,000 more than the average for May 1 for ten years previous to this season. Compared with a month ago there is an increase of 5,000 tierces.

The aggregate stocks of lard, as mentioned the first of each month for years stated, compare as follows, represented in tierces:—

	1905.	1904.	1903.	1902.	1901.
Jan...	178,000	134,000	105,000	163,000	159,000
Feb..	259,000	153,000	145,000	179,000	168,000
Mar..	301,000	248,000	138,000	198,000	175,000
April.	297,000	218,000	120,000	200,000	159,000
May..	302,000	222,000	133,000	157,000	137,000
June..	.....	245,000	141,000	151,000	149,000
July..	.....	274,000	184,000	170,000	175,000
Aug..	.....	321,000	200,000	156,000	192,000
Sept..	.....	276,000	187,000	130,000	182,000
Oct...	.....	224,000	231,000	114,000	136,000
Nov..	.....	180,000	155,000	72,000	126,000
Dec..	.....	175,000	122,000	90,000	115,000

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ACETIC ACID	BISULPHATE SODA	WOOL CARBONIZERS
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DYE MARKET.

NOTE.—Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures. Complete prices current will be found on page 33.

Saturday Noon, May 13, 1905.

The same dull and uninteresting condition which has characterized the market during late weeks prevails, and disappointment is generally expressed that May, which is usually a favorable month, should have proved so notably backward so far. Buyers' wants are chiefly manifested in small jobbing lots for current requirement. Acetate of Soda is firmer, in consequence of the position of the raw materials, and comparatively little is being offered. Albumen is generally firm for both egg and blood, but some relatively cheap goods are still in evidence. An improved demand is noted for cochineal. The market for corn dextrine and starch remains disturbed by powerful competition, but prices show no late change. Gambier is dull but nominally steady, especially for shipment. Nutgalls are maintained at their relatively high level on spot, but an easier tendency is reported in London for blue Aleppo galls. There are reports of further lots of adulterated Sumac coming to this country.

ACETATE OF SODA.—The strength of the market has been established by a late inquiry for 25 bbls., for which nothing better than 3¾c. could be done. Some difficulty was encountered in finding a lot of this quantity available. Makers do not feel encouraged to manufacture under the present firmness of the raw materials, and one leading house is offering only jobbing parcels to its regular trade.

ACID, TANNIC.—Makers are not disposed to shade 35c. for commercial, but we hear of outside lots still available under this figure. Crystals are well sustained at 50@65c.

ALBUMEN.—While 45c. may be repeated as an inside quotation for Chinese egg albumen, the goods offered at this price are not believed to be of very choice quality. A buyer who paid 42½c. early in the year was, we are informed, willing to pay 47c. for 1,300 lbs. of Chinese duck egg. In some quarters 50c. is quoted for prime Chinese goods. Comparatively little buying interest is manifested in the dearer European grades, for which up to 65c. is asked. For the choicer kinds of imported blood albumen up to 28c. is named, but some varieties are obtainable at 21c.

ANILINE OIL.—In spite of the backward demand, the market retains a fairly steady tone, with nothing openly offered below 10¼c.

ANILINE SALT.—No new features have developed and while the demand continues quiet, quotations are nominally maintained at 8¾@9c.

BICHROMATES.—The course of this market is steady along the stereotyped lines which have remained in effect for more than a year. Potash is quoted at 8½@8¾c., and soda at 6½@6¾c. The inside figures are for 5 cask lots, carload quantities of 40 casks being available at a concession of 2 per cent., with freight allowed at any point east of the Mississippi.

COCHINEAL.—The lot of 12 bags, the arrival of which was noted last week, has been taken for consuming requirements. There has been a fair movement in gray black of late, one transaction involving nearly 5,000 lbs. Quotations for all descriptions are maintained at 48@50c.

DEXTRINE.—The market for corn dextrine shows no further result of the controversy between the two principal rivals, so far as quotations are concerned, and 2.35c. remains the carload price. Some of the outside holders are maintaining 2½@2¾c. Values for imported potato dextrine are firm at 6½@7½c. and domestic potato is apparently steady at 5½@6c., as to grade, quantity and seller.

GAMBIER.—The only feature to the market this week is the arrival of the Indrasamba with 4,239 bales, for which 4c. can be done from dock. Comparatively little is said to be available from this lot. The Richmond Castle is due with 350 tons. Store stuff is quoted at 4¼@4¾c., as to length of storage, quantity and seller. Nothing is in evidence for shipment below 3.95c., and while this level is maintained, buyers in the primary markets continue their waiting tactics.

INDIGO.—There is nothing new in either the vegetable or the synthetic situation, so far as local conditions are concerned, and quotations for all descriptions are steady as listed. With the close of the vegetable season in Calcutta, the following table, showing the extent of the crop and the proportion for distribution to this country during the last thirteen years may be of interest:—

Year.	Crop. Chests.	Exports to U. S. Chests.
1904-5	9,518	1,400
1903-4	13,460	3,227
1902-3	10,700	2,504
1901-2	20,957	3,134
1900-1	27,528	6,385
1899-1900	21,751	3,950
1898-9	31,171	6,936
1897-8	27,284	7,652
1896-7	39,783	7,878
1895-6	40,510	6,735
1894-5	39,974	8,917
1893-4	27,731	4,203
1892-3	20,948	6,274

NUTGALLS.—Late advices indicate a slightly easier tendency in London for blue Aleppo galls, and offers have been made for shipment from recent arrivals at a figure that would put the cost here a trifle under 20c. The spot basis remains, however, 24@25c., available stocks being light and closely held. The movement is of a hand-to-mouth character. Chinese galls are nominally steady at 14½@15c.

PRUSSIATES.—A moderate call is manifested for contract deliveries, but new business is slight and the market remains without feature at 13½@13¾c. for yellow prussiate of potash and at 9½@9¾c. for prussiate of soda.

STARCH.—With the competition over corn starch unabated, the market continues unsettled, with buyers waiting for still lower prices. The current basis of 1.55c. in bags and 1.70c. in bbls. for pearl is said to be considerably below cost. Other descriptions are apparently steady as listed.

SUMAC.—Mail advices from Palermo indicate that the practice of adulteration continues without apparent restraint on the part of government officials, and it was declared that the Canopic on her last trip to Boston carried 5,780 bags that had not been examined and were probably largely mixed with lentisco. The same authority deplores the fact that the commission appointed by the government to check the evil is composed of men who are not posted on sumac and who are not likely to bring about a satisfactory solution of the difficulty. On spot sumac represented to be No. 1 is said to be available at $42, but in other quarters up to $48 is asked for shipment.

TURMERIC.—The late arrivals of Aleppo are held firmly at 3⅞c. from store. Bengal is offered at 3¼@3½c. There is said to be nothing on spot of the Chinese and Coringa varieties. The Calcutta Capital prints the following in an issue just at hand:—

Turmeric has been in fair demand, but sales retarded for want of offerings. It is reported that the Bengal crop is rather short and prices for Daisi sorts have risen considerably. Business has been doing at the undernoted prices for prompt deliveries. Supplies and stocks are light.

ZINC DUST.—Some goods have lately been available at 3¼c., but it is doubtful whether anything remains in this position, and from store 5½c. is probably an inside figure.

(Special Correspondence to the Reporter.)

Petroleum in Trans-Pecos Region, Texas.

Washington, May 12, 1905.

The question as to the probable presence of petroleum in commercial quantities in the region known as trans-Pecos, Texas—in Pecos, Reeves and Eastern El Paso counties—is the subject of a special bulletin prepared by the United States Geological Survey based upon a recent reconnaissance made for the purpose of gathering the most reliable data with regard to a district concerning which there is much diversity of opinion among oil men. Following is an abstract of this bulletin:—

The presence of petroleum in this region has been suspected for several years. Indications are numerous. Bituminous limestones, sandstones and shales that give a strong odor on being struck with a hammer outcrop in many places. The occurrence of globules of oil in water from various wells, of a few oil seeps, and especially of small quantities of petroleum in oil prospects, tends to confirm the suspicion that oil in paying quantities actually exists here. But as yet this hope has not been realized.

Dr. Philipps, of the University of Texas Mineral Survey, has called attention to the presence of oil and asphalt in small quantities near Fort Stockton, and a well has since been put down 1,200 feet in search of oil in that vicinity, and though a little petroleum and gas and considerable sulphur were reported, oil in paying quantities was not found. The well struck highly mineralized artesian water, which flows about 25 barrels a day. The geology of the surrounding area has not yet been studied. Another unsuccessful deep well was sunk in search of oil about 4 miles west of Carlsbad, New Mexico, in 1902. A log was not kept, but the well was sunk chiefly through limestone to a depth of 1,300 feet, and only a little gas and oil were reported.

In the region with which this paper is concerned a number of wells have been drilled in this supposed oil belt. The deepest of these, the Aden well, on the east slope of the Delaware Mountains, about 35 miles northeast of Vanhorn, was sunk in 1902 in search of water. No signs of oil were reported from this well, which was put down 916 feet, mostly in Permian limestone. Another deep hole is the artesian well at Toyah, 832 feet deep, which is said to have gone all the way through unconsolidated materials. The water contains considerable hydrogen sulphide, but no hydrocarbons were reported.

A number of wells have been drilled in the unconsolidated deposits of Toyah basin, in the immediate vicinity of Pecos, where artesian water is found at depths between 100 and 300 feet. The occasional presence of traces of oil in this water is reported. In 1901 a well was drilled 6 miles southeast of Pacos to a depth of 282 feet in the basin deposits. A small amount of gas was struck at 155 feet; traces of oil were found at 217 feet, and several other traces of oil were encountered between 240 and 282 feet.

Petroleum has been found also in two other wells in the Toyah basin, the Casey and Ross wells, respectively 12 and 15 miles northwest of Pecos. The quantity is so small that the oil is cased off, and the wells are used for watering stock. Traces of oil are found in the Tinnin well, near cottonwood Draw, about 20 miles northwest of Toyah; in the Burnt Spring, northwest of Toyah, and at a few other localities. Also, a small amount of natural gas was found in a 21-foot bore hole in the sulphur area northeast of Rustler Spring.

In spite of these various indications, very little oil had been found in trans-Pecos, Texas, until early in 1903, when Mr. J. D. Leatherman reported oil about 15 miles northwest of Toyah, in the Toyah basin. This oil is said to occur in unconsolidated materials, but it has not yet been regularly removed, and the yield of the well has not been determined. The well went through 20 feet of surface material, mostly gypsum, 20 feet of gravel and 150 feet of bluish clay containing a few sand streaks. Oil, which rose to within about 30 feet of the surface, is reported to have been found at 170 feet. Considerable gas accompanies this oil.

Oil from the Leatherman well was for sale in the winter of 1903-4 at Pecos, where it was used for lubricating windmills. An analysis of both the Leatherman well and the Toyah well was made by Mr. O. H. Palm, of the University of Texas Mineral Survey, as follows:—

Specific gravity—20 deg. C. (68 deg. F.), 0.9690, equivalent to 24 deg. Baume. Barometer—29.2 inches.

Color—Dark brown. Odor—Sweet.

Viscosity—Engler test, 20 deg. at 25 deg. C.—73 deg. F.

Cooling test—Oil flows at minus 16 deg. C.—3 deg. F.

Flash point—74 deg. C.—165.2 deg. F. Burning point—110 deg. C.—230 deg. F.

Heating power—19,440 B. T. U. Calories—10,800 on water free oil.

The heavy oil has a very low viscosity, due to the fact that the crude oil decomposed rapidly during the distillation. A sickening odor was given off during the entire fractionation.

Judging from the analysis, this oil appears to be similar in some respects to the Beaumont product. The Toyah sample has not been studied enough, however, to determine many of its characteristics. Its flash point is rather low, but it has a good calorific value, and, if found in profitable quantity, its chief use probably will be as a fuel.

In the fall of 1903 a well was sunk by a California company about 1¼ miles southwest of the Leatherman well, with poor results. The log of this well is as follows:—

	Thickness. Feet.	Depth. Feet.
Surface, mostly gypsum.....	27	27
Gravel	40	67
Coarse gravel, water at base...	4	71
Blue clay	9	80
Hard sand	45	125
Blue clay	14	139
Brown clay	95	234

Nevertheless, it was decided by those in charge to make a decisive test in this vicinity, and winter quarters were erected and a new site chosen near the other wells. Work is said to have been in progress during 1904, but in January, 1905, it was reported that the well had been abandoned.

The Leatherman and California oil wells are situated in the Toyah basin, in the midst of a broad, very gently undulating flat. Cottonwood Draw, occupying a scarcely perceptible swale, is near by. In the immediate vicinity of the wells, and extending far eastward in both a northern and a southern direction, pulverulent, earthy gypsum covers the surface. At the wells this gypsum is from 18 to 27 feet thick. In this immediate vicinity the gypsum is impregnated with native sulphur. Outside of this gypsum area the Toyah basin is covered by loose detritus of igneous rock, sandstone and limestone. This material is wash from the adjacent highlands, the igneous rock coming from the Davis Mountains to the southwest.

At about 1¼ miles southwest of the wells is a small area of broken gray limestone, and from 5 to 7 miles west, extending in an approximately north-south belt, are low outcrops of coarse and fine textured sandstone, with interbedded limestone, which are almost buried by the surrounding basin deposits. These are outlying Cretaceous rocks, belonging to the Washita group of the Comanche series.

The "wash" of Toyah basin extends farther west, to the Rystler Hills, in which sandstone and limestone outcrop. Westward these strata are succeeded by the belt of bedded gypsum, and finally by the sandstones and limestones in the Delaware Mountains. These rocks in general dip low to the east, but their structure, depth and extent in the Toyah basin are unknown because of the cover of wash and the erosion that occurred previous to the deposition of the basin deposits.

Reviewing known conditions in the area covered by the reconnaisance the following may be noted concerning the possible abundance of petroleum. There occurs here a great mass of little disturbed sedimentary rocks, some of which are bituminous. There are beds of porous rock to serve as reservoirs. Locally the strata are gently folded, and small amounts of petroleum are widely disseminated. On the other hand, there is very little shale in this region to act as an impervious cap to prevent the escape and to aid in the accumulation of oil. However, there is considerable limestone, which sometimes is an effective barrier. There is no general system of folds to provide for storage and the accumulation of pools, but the beds are characteristically lenticular, and there may be lenses of porous rock saturated with oil that is preserved by contiguous impervious beds. Besides chances for oil in the older rocks, there are possibilities, in the wide extent of the unconsolidated materials of Toyah basin, for a combination of favorable conditions for collecting disseminated petroleum and for its storage. Only the drill can determine whether oil exists here in paying quantities.

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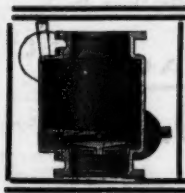

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